Message

From: Suarez, Mark [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9BDB9158F4B245F8969069AC019D4F13-MARK E SUAREZ]
Sent: 3/7/2019 5:56:09 PM
To: Villanueva, Philip [Villanueva.Philip@epa.gov]
Subject: RE: do you have the SAP docs for the 2002 usage/PCT sap - i think you did some forecasting work on that??? do you have the resulting SAP doc?

Thanks, Phil. I was able to find the zipped documents in the BEAD files, but not the follow-up presentation.

From: Villanueva, Philip
Sent: Thursday, March 07, 2019 12:44 PM
To: Suarez, Mark <Suarez.Mark@epa.gov>; Becker, Jonathan <Becker.Jonathan@epa.gov>
Subject: FW: do you have the SAP docs for the 2002 usage/PCT sap - i think you did some forecasting work on that??? do you have the resulting SAP doc?

FYI – I shared these with Brian Anderson earlier today.

From: Villanueva, Philip
Sent: Thursday, March 07, 2019 11:04 AM
To: Anderson, Brian <Anderson.Brian@epa.gov>
Subject: RE: do you have the SAP docs for the 2002 usage/PCT sap - i think you did some forecasting work on that??? do you have the resulting SAP doc?

I'm really surprised the documents can't be downloaded from the website even though it list them.

https://www.regulations.gov/docketBrowser?rpp=50&po=0&D=EPA-HQ-OPP-2002-0228

Anyways, to the best of my knowledge, the zip file contains all the documents I sent to the SAP. I can probably hunt down the SAP report and questions if you want those. For the SAP, we did a limited comparison of 17 pesticide-crop combinations. Attached is a follow up analysis, post-SAP where we looked at nearly 1300 of them. The bottom line was that it was hard to outdo forecasting that next year is the same as this year. Hope this helps. Let me know if you want to sit down and talk.

From: Anderson, Brian
Sent: Thursday, March 07, 2019 9:25 AM
To: Villanueva, Philip <Villanueva.Philip@epa.gov>
Subject: RE: do you have the SAP docs for the 2002 usage/PCT sap - i think you did some forecasting work on that??? do you have the resulting SAP doc?

We couldn't find the materials on the website – we are getting a comment on the ESA methods about future use – and

Ex. 5 Deliberative Process (DP)

Thanks Phil!

Brian

From: Villanueva, Philip
Sent: Thursday, March 7, 2019 9:23 AM
To: Anderson, Brian <Anderson.Brian@epa.gov>
Subject: RE: do you have the SAP docs for the 2002 usage/PCT sap - i think you did some forecasting work on that??? do you have the resulting SAP doc?

Wow, that's 17 years ago! I can probably get them from the SAP website. We only forecasted PCT. Using various univariate models (i.e., no predictor variables), we found that a simple "blind man" forecast (i.e., next year will be the same as this year) performed just as well as more sophisticated models that accounted for potential trends.

From: Anderson, Brian
Sent: Thursday, March 07, 2019 9:16 AM
To: Villanueva, Philip <Villanueva.Philip@epa.gov>
Subject: do you have the SAP docs for the 2002 usage/PCT sap - i think you did some forecasting work on that??? do you have the resulting SAP doc?

Message

From: Suarez, Mark [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9BDB9158F4B245F8969069AC019D4F13-MARK E SUAREZ]
Sent: 5/7/2019 4:43:34 PM
To: Doucoure, Cynthia [Doucoure.Cynthia@epa.gov]
Subject: ESA AIs

Cynthia,

Did you, or anyone else, address the following questions from NMFS?

From NMFS:
As background: we are hoping to include modified tables (based on the SUUM reports) that are specific to usage in WA, OR, ID and CA (in addition to including the entire SUUM report as an appendix).

The prometryn SUUM uses the phrase "not surveyed" and "not surveyed at state level" in table 2. Can these be interpreted to mean the same thing as "not surveyed at national level"?

For bromoxynil, a few approved uses do not appear in the SUUM (industrial sites, rights-of-way, conservation reserve program). Would it be accurate to indicate "not surveyed at national level" for these uses?

Also, I noticed what might be a couple of typos in the PCT reported for Bromoxynil (table 2). Can you provided clarification for these? For barley in WA, the reported average (0.3) is lower than the reported minimum (43.6). For alfalfa in OR, the reported minimum (0.6) is higher than the reported maximum (0.0).

Thank you.

Mark

Mark Suarez
Senior Scientist
Science Information and Analysis Branch
Biological and Economic Analysis Division
US EPA (Mail Code 7503P)
1200 Pennsylvania Avenue, NW
Washington, DC 20460

phone: 703-305-0120

Appointment

From: Becker, Jonathan [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=CC74340798E549A1B3E20BD8BCC233DA-JONATHAN BECKER]
Sent: 2/7/2018 6:35:36 PM
To: Garber, Kristina [Garber.Kristina@epa.gov]

Subject: Accepted: discuss draft method for incorporating usage data (PCT) into ESA method
Location: DCRoomPYS7100/Potomac-Yard-One

Start: 2/15/2018 2:00:00 PM
End: 2/15/2018 3:00:00 PM
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Appointment

From: Garber, Kristina [Garber.Kristina@epa.gov]
Sent: 2/7/2018 6:30:36 PM
To: Garber, Kristina [Garber.Kristina@epa.gov]; Rossmeisl, Colleen [Rossmeisl.Colleen@epa.gov]; Panger, Melissa [Panger.Melissa@epa.gov]; Peck, Charles [Peck.Charles@epa.gov]; Lennartz, Steven [Lennartz.Steven@epa.gov]; Connolly, Jennifer [Connolly.Jennifer@epa.gov]; Blankinship, Amy [Blankinship.Amy@epa.gov]; Donovan, Elizabeth [Donovan.Elizabeth@epa.gov]; Eckel, William [Eckel.William@epa.gov]; White, Katrina [White.Katrina@epa.gov]; Paisley-Jones, Claire [Paisley-Jones.Claire@epa.gov]; Atwood, Donald [Atwood.Donald@epa.gov]; Sims, Diann [Sims.Diann@epa.gov]; Corbin, Mark [Corbin.Mark@epa.gov]; Anderson, Brian [Anderson.Brian@epa.gov]; Becker, Jonathan [Becker.Jonathan@epa.gov]; Myers, Clayton [Myers.Clayton@epa.gov]
CC: Spatz, Dana [Spatz.Dana@epa.gov]; Stebbins, Katherine [Stebbins.Katherine@epa.gov]; Jones, Arnet [Jones.Arnet@epa.gov]; Kiely, Timothy [Kiely.Timothy@epa.gov]; Kaul, Monisha [Kaul.Monisha@epa.gov]; Wyatt, TJ [Wyatt.Tj@epa.gov]; Suarez, Mark [Suarez.Mark@epa.gov]; Chism, William [Chism.Bill@epa.gov]; Berwald, Derek [Berwald.Derek@epa.gov]

Subject: discuss draft method for incorporating usage data (PCT) into ESA method
Attachments: Usage_step2_2-14-18(BEAD scientists).pptx; Methomyl SUUM.012918.Final.docx
Location: DCRoomPYS7100/Potomac-Yard-One

Start: 2/15/2018 2:00:00 PM
End: 2/15/2018 3:00:00 PM
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Hello all,

The ESA team has working on the refined ESA method for steps 1 and 2. The current draft of the method involves incorporating usage data (specifically percent crop treated) into the determination of whether a species is likely or not likely to be adversely affected by a pesticide. The team would like to present the draft approach involving PCT to BEAD scientists and get feedback.

Please let me know if there are other folks that should be added to this invite.

Please consider these slides an internal deliberative, do not cite or distribute.

Thanks,
Kris

Conference phone number: 1 (202) 991-0477
Conference ID: 9623976

Appointment

From: Becker, Jonathan [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=CC74340798E549A1B3E20BD8BCC233DA-JONATHAN BECKER]
Sent: 2/7/2018 6:40:16 PM
To: Jones, Arnet [Jones.Arnet@epa.gov]; Kiely, Timothy [Kiely.Timothy@epa.gov]; Kaul, Monisha [Kaul.Monisha@epa.gov]; Wyatt, TJ [Wyatt.Tj@epa.gov]; Suarez, Mark [Suarez.Mark@epa.gov]; Chism, William [Chism.Bill@epa.gov]; Berwald, Derek [Berwald.Derek@epa.gov]

Subject: FW: discuss draft method for incorporating usage data (PCT) into ESA method
Location: DCRoomPYS7100/Potomac-Yard-One

Start: 2/15/2018 2:00:00 PM
End: 2/15/2018 3:00:00 PM
Show Time As: Tentative

-----Original Appointment-----
From: Garber, Kristina
Sent: Wednesday, February 07, 2018 1:31 PM
To: Garber, Kristina; Rossmeisl, Colleen; Panger, Melissa; Peck, Charles; Lennartz, Steven; Connolly, Jennifer; Blankinship, Amy; Donovan, Elizabeth; Eckel, William; White, Katrina; Paisley-Jones, Claire; Atwood, Donald; Sims, Diann; Corbin, Mark; Anderson, Brian; Becker, Jonathan; Myers, Clayton
Cc: Spatz, Dana; Stebbins, Katherine
Subject: discuss draft method for incorporating usage data (PCT) into ESA method
When: Thursday, February 15, 2018 9:00 AM-10:00 AM (UTC-05:00) Eastern Time (US & Canada).
Where: DCRoomPYS7100/Potomac-Yard-One

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Appointment

From: Becker, Jonathan [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=CC74340798E549A1B3E20BD8BCC233DA-JONATHAN BECKER]
Sent: 2/7/2018 6:35:36 PM
To: Garber, Kristina [Garber.Kristina@epa.gov]

Subject: Accepted: discuss draft method for incorporating usage data (PCT) into ESA method
Location: DCRoomPYS7100/Potomac-Yard-One

Start: 2/15/2018 2:00:00 PM
End: 2/15/2018 3:00:00 PM
Show Time As: Busy

Ex. 5 Deliberative Process (DP)

Appointment

From: Donovan, Elizabeth [Donovan.Elizabeth@epa.gov]
Sent: 5/13/2020 9:39:44 PM
To: Donovan, Elizabeth [Donovan.Elizabeth@epa.gov]; Rossmeisl, Colleen [Rossmeisl.Colleen@epa.gov]; Connolly, Jennifer [Connolly.Jennifer@epa.gov]; Suarez, Mark [Suarez.Mark@epa.gov]; Paisley-Jones, Claire [Paisley-Jones.Claire@epa.gov]; Doucoure, Cynthia [Doucoure.Cynthia@epa.gov]; Otte, Briana [otte.briana@epa.gov]; Muela, Stephen [muela.stephen@epa.gov]; Sinnathamby, Sumathy [sinnathamby.sumathy@epa.gov]
CC: Bohaty, Rochelle [Bohaty.Rochelle@epa.gov]; Hafner, Sarah [hafner.sarah@epa.gov]; Louie-Juzwiak, Rosanna [Louie-Juzwiak.Rosanna@epa.gov]; Spatz, Dana [Spatz.Dana@epa.gov]; Summers, Holly [summers.holly@epa.gov]; Farruggia, Frank [Farruggia.Frank@epa.gov]; Kiernan, Brian [Kiernan.Brian@epa.gov]; Crews, Kristy [crews.kristy@epa.gov]; Peck, Charles [Peck.Charles@epa.gov]; Kyle, Lee [Kyle.Lee@epa.gov]; Corbin, Mark [Corbin.Mark@epa.gov]

Subject: Herbicide ESA: Use/Usage Discussions
Attachments: Untitled Attachment
Location: Microsoft Teams Meeting

Start: 5/19/2020 1:00:00 PM
End: 5/19/2020 2:00:00 PM
Show Time As: Tentative

Recurrence: Weekly
every Tuesday from 9:00 AM to 10:00 AM

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Appointment

To: Sinnathamby, Sumathy [sinnathamby.sumathy@epa.gov]; Muela, Stephen [muela.stephen@epa.gov]; Otte, Briana [otte.briana@epa.gov]; Doucoure, Cynthia [Doucoure.Cynthia@epa.gov]; Paisley-Jones, Claire [Paisley-Jones.Claire@epa.gov]; Suarez, Mark [Suarez.Mark@epa.gov]; Rossmeisl, Colleen [Rossmeisl.Colleen@epa.gov]; Donovan, Elizabeth [Donovan.Elizabeth@epa.gov]; Rossmeisl, Colleen [Rossmeisl.Colleen@epa.gov]; Connolly, Jennifer [Connolly.Jennifer@epa.gov]; Suarez, Mark [Suarez.Mark@epa.gov]; Paisley-Jones, Claire [Paisley-Jones.Claire@epa.gov]; Doucoure, Cynthia [Doucoure.Cynthia@epa.gov]; Otte, Briana [otte.briana@epa.gov]; Muela, Stephen [muela.stephen@epa.gov]; Sinnathamby, Sumathy [sinnathamby.sumathy@epa.gov]; Garber, Kristina [Garber.Kristina@epa.gov]

CC: Corbin, Mark [Corbin.Mark@epa.gov]; Kyle, Lee [Kyle.Lee@epa.gov]; Peck, Charles [Peck.Charles@epa.gov]; Crews, Kristy [crews.kristy@epa.gov]; Kiernan, Brian [Kiernan.Brian@epa.gov]; Farruggia, Frank [Farruggia.Frank@epa.gov]; Summers, Holly [summers.holly@epa.gov]; Spatz, Dana [Spatz.Dana@epa.gov]; Louie-Juzwiak, Rosanna [Louie-Juzwiak.Rosanna@epa.gov]; Hafner, Sarah [hafner.sarah@epa.gov]; Bohaty, Rochelle [Bohaty.Rochelle@epa.gov]; Bohaty, Rochelle [Bohaty.Rochelle@epa.gov]; Hafner, Sarah [hafner.sarah@epa.gov]; Louie-Juzwiak, Rosanna [Louie-Juzwiak.Rosanna@epa.gov]; Spatz, Dana [Spatz.Dana@epa.gov]; Summers, Holly [summers.holly@epa.gov]; Farruggia, Frank [Farruggia.Frank@epa.gov]; Kiernan, Brian [Kiernan.Brian@epa.gov]; Crews, Kristy [crews.kristy@epa.gov]; Peck, Charles [Peck.Charles@epa.gov]; Kyle, Lee [Kyle.Lee@epa.gov]; Corbin, Mark [Corbin.Mark@epa.gov]

Location: Microsoft Teams Meeting

Start: 5/19/2020 1:00:00 PM
End: 5/19/2020 2:00:00 PM

Importance: High

Recurrence: (none)

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Appointment

From: Donovan, Elizabeth [Donovan.Elizabeth@epa.gov]
Sent: 5/13/2020 9:39:44 PM
To: Donovan, Elizabeth [Donovan.Elizabeth@epa.gov]; Rossmeisl, Colleen [Rossmeisl.Colleen@epa.gov]; Connolly, Jennifer [Connolly.Jennifer@epa.gov]; Suarez, Mark [Suarez.Mark@epa.gov]; Paisley-Jones, Claire [Paisley-Jones.Claire@epa.gov]; Doucoure, Cynthia [Doucoure.Cynthia@epa.gov]; Otte, Briana [otte.briana@epa.gov]; Muela, Stephen [muela.stephen@epa.gov]; Sinnathamby, Sumathy [sinnathamby.sumathy@epa.gov]
CC: Bohaty, Rochelle [Bohaty.Rochelle@epa.gov]; Hafner, Sarah [hafner.sarah@epa.gov]; Louie-Juzwiak, Rosanna [Louie-Juzwiak.Rosanna@epa.gov]; Spatz, Dana [Spatz.Dana@epa.gov]; Summers, Holly [summers.holly@epa.gov]; Farruggia, Frank [Farruggia.Frank@epa.gov]; Kiernan, Brian [Kiernan.Brian@epa.gov]; Crews, Kristy [crews.kristy@epa.gov]; Peck, Charles [Peck.Charles@epa.gov]; Kyle, Lee [Kyle.Lee@epa.gov]; Corbin, Mark [Corbin.Mark@epa.gov]

Subject: Herbicide ESA: Use/Usage Discussions
Location: Microsoft Teams Meeting

Start: 5/19/2020 1:00:00 PM
End: 5/19/2020 2:00:00 PM
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Appointment

From: Connolly, Jennifer [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C807828D47064F349FC01C6CDCD4FA94-CONNOLLY, J]
Sent: 4/29/2020 10:33:01 PM
To: Connolly, Jennifer [Connolly.Jennifer@epa.gov]; Bohaty, Rochelle [Bohaty.Rochelle@epa.gov]; Spatz, Dana [Spatz.Dana@epa.gov]; Louie-Juzwiak, Rosanna [Louie-Juzwiak.Rosanna@epa.gov]; Stebbins, Katherine [Stebbins.Katherine@epa.gov]; Hafner, Sarah [hafner.sarah@epa.gov]; Donovan, Elizabeth [Donovan.Elizabeth@epa.gov]; Rossmeisl, Colleen [Rossmeisl.Colleen@epa.gov]; Sinnathamby, Sumathy [sinnathamby.sumathy@epa.gov]; Muela, Stephen [muela.stephen@epa.gov]; Summers, Holly [summers.holly@epa.gov]
CC: Kyle, Lee [Kyle.Lee@epa.gov]

Subject: Glyphosate Use/UDL crosswalk
Location: Microsoft Teams Meeting

Start: 5/4/2020 1:30:00 PM
End: 5/4/2020 2:30:00 PM
Show Time As: Busy

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Appointment

From: Donovan, Elizabeth [Donovan.Elizabeth@epa.gov]
Sent: 5/28/2020 6:16:12 PM
To: Rossmeisl, Colleen [Rossmeisl.Colleen@epa.gov]; Connolly, Jennifer [Connolly.Jennifer@epa.gov]; Suarez, Mark [Suarez.Mark@epa.gov]; Paisley-Jones, Claire [Paisley-Jones.Claire@epa.gov]; Doucoure, Cynthia [Doucoure.Cynthia@epa.gov]; Otte, Briana [otte.briana@epa.gov]; Muela, Stephen [muela.stephen@epa.gov]; Sinnathamby, Sumathy [sinnathamby.sumathy@epa.gov]
CC: Bohaty, Rochelle [Bohaty.Rochelle@epa.gov]; Hafner, Sarah [hafner.sarah@epa.gov]; Louie-Juzwiak, Rosanna [Louie-Juzwiak.Rosanna@epa.gov]; Spatz, Dana [Spatz.Dana@epa.gov]; Summers, Holly [summers.holly@epa.gov]; Farruggia, Frank [Farruggia.Frank@epa.gov]; Kiernan, Brian [Kiernan.Brian@epa.gov]; Crews, Kristy [crews.kristy@epa.gov]; Peck, Charles [Peck.Charles@epa.gov]; Kyle, Lee [Kyle.Lee@epa.gov]; Corbin, Mark [Corbin.Mark@epa.gov]

Subject: Herbicide ESA: Use/Usage Discussions
Location: Microsoft Teams Meeting

Start: 6/2/2020 1:00:00 PM
End: 6/2/2020 2:00:00 PM
Show Time As: Tentative

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every Tuesday from 9:00 AM to 10:00 AM

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Appointment

From: Donovan, Elizabeth [Donovan.Elizabeth@epa.gov]
Sent: 5/13/2020 9:39:44 PM
To: Donovan, Elizabeth [Donovan.Elizabeth@epa.gov]; Rossmeisl, Colleen [Rossmeisl.Colleen@epa.gov]; Connolly, Jennifer [Connolly.Jennifer@epa.gov]; Suarez, Mark [Suarez.Mark@epa.gov]; Paisley-Jones, Claire [Paisley-Jones.Claire@epa.gov]; Doucoure, Cynthia [Doucoure.Cynthia@epa.gov]; Otte, Briana [otte.briana@epa.gov]; Muela, Stephen [muela.stephen@epa.gov]; Sinnathamby, Sumathy [sinnathamby.sumathy@epa.gov]
CC: Bohaty, Rochelle [Bohaty.Rochelle@epa.gov]; Hafner, Sarah [hafner.sarah@epa.gov]; Louie-Juzwiak, Rosanna [Louie-Juzwiak.Rosanna@epa.gov]; Spatz, Dana [Spatz.Dana@epa.gov]; Summers, Holly [summers.holly@epa.gov]; Farruggia, Frank [Farruggia.Frank@epa.gov]; Kiernan, Brian [Kiernan.Brian@epa.gov]; Crews, Kristy [crews.kristy@epa.gov]; Peck, Charles [Peck.Charles@epa.gov]; Kyle, Lee [Kyle.Lee@epa.gov]; Corbin, Mark [Corbin.Mark@epa.gov]

Subject: Herbicide ESA: Use/Usage Discussions
Attachments: Herbicide ESA: Use/Usage Discussions; Untitled Attachment; Untitled Attachment
Location: Microsoft Teams Meeting

Start: 5/19/2020 1:00:00 PM
End: 5/19/2020 2:00:00 PM
Show Time As: Busy

Recurrence: Weekly
every Tuesday from 9:00 AM to 10:00 AM

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Appointment

From: Donovan, Elizabeth [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=35558CD8D0A249B7BFCF097BAC82814C-RILEY, ELIZABETH]
Sent: 5/18/2020 3:11:14 PM
To: Sinnathamby, Sumathy [sinnathamby.sumathy@epa.gov]; Muela, Stephen [muela.stephen@epa.gov]; Otte, Briana [otte.briana@epa.gov]; Doucoure, Cynthia [Doucoure.Cynthia@epa.gov]; Paisley-Jones, Claire [Paisley-Jones.Claire@epa.gov]; Suarez, Mark [Suarez.Mark@epa.gov]; Rossmeisl, Colleen [Rossmeisl.Colleen@epa.gov]; Donovan, Elizabeth [Donovan.Elizabeth@epa.gov]; Rossmeisl, Colleen [Rossmeisl.Colleen@epa.gov]; Connolly, Jennifer [Connolly.Jennifer@epa.gov]; Suarez, Mark [Suarez.Mark@epa.gov]; Paisley-Jones, Claire [Paisley-Jones.Claire@epa.gov]; Doucoure, Cynthia [Doucoure.Cynthia@epa.gov]; Otte, Briana [otte.briana@epa.gov]; Muela, Stephen [muela.stephen@epa.gov]; Sinnathamby, Sumathy [sinnathamby.sumathy@epa.gov]; Garber, Kristina [Garber.Kristina@epa.gov]
CC: Corbin, Mark [Corbin.Mark@epa.gov]; Kyle, Lee [Kyle.Lee@epa.gov]; Peck, Charles [Peck.Charles@epa.gov]; Crews, Kristy [Crews.Kristy@epa.gov]; Kiernan, Brian [Kiernan.Brian@epa.gov]; Farruggia, Frank [Farruggia.Frank@epa.gov]; Summers, Holly [summers.holly@epa.gov]; Spatz, Dana [Spatz.Dana@epa.gov]; Louie-Juzwiak, Rosanna [Louie-Juzwiak.Rosanna@epa.gov]; Hafner, Sarah [hafner.sarah@epa.gov]; Bohaty, Rochelle [Bohaty.Rochelle@epa.gov]; Bohaty, Rochelle [Bohaty.Rochelle@epa.gov]; Hafner, Sarah [hafner.sarah@epa.gov]; Louie-Juzwiak, Rosanna [Louie-Juzwiak.Rosanna@epa.gov]; Spatz, Dana [Spatz.Dana@epa.gov]; Summers, Holly [summers.holly@epa.gov]; Farruggia, Frank [Farruggia.Frank@epa.gov]; Kiernan, Brian [Kiernan.Brian@epa.gov]; Crews, Kristy [Crews.Kristy@epa.gov]; Peck, Charles [Peck.Charles@epa.gov]; Kyle, Lee [Kyle.Lee@epa.gov]; Corbin, Mark [Corbin.Mark@epa.gov]

Subject: Herbicide ESA: Use/Usage Discussions
Location: Microsoft Teams Meeting

Start: 5/19/2020 1:00:00 PM
End: 5/19/2020 2:00:00 PM
Show Time As: Busy

Importance: High

Recurrence: Weekly
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Appointment

To: Donovan, Elizabeth [Donovan.Elizabeth@epa.gov]; Sinnathamby, Sumathy [sinnathamby.sumathy@epa.gov]; Rossmeisl, Colleen [Rossmeisl.Colleen@epa.gov]; Connolly, Jennifer [Connolly.Jennifer@epa.gov]; Suarez, Mark [Suarez.Mark@epa.gov]; Paisley-Jones, Claire [Paisley-Jones.Claire@epa.gov]; Doucoure, Cynthia [Doucoure.Cynthia@epa.gov]; Otte, Briana [otte.briana@epa.gov]; Muela, Stephen [muela.stephen@epa.gov]

CC: Bohaty, Rochelle [Bohaty.Rochelle@epa.gov]; Hafner, Sarah [hafner.sarah@epa.gov]; Louie-Juzwiak, Rosanna [Louie-Juzwiak.Rosanna@epa.gov]; Spatz, Dana [Spatz.Dana@epa.gov]; Summers, Holly [summers.holly@epa.gov]; Farruggia, Frank [Farruggia.Frank@epa.gov]; Kiernan, Brian [Kiernan.Brian@epa.gov]; Crews, Kristy [Crews.Kristy@epa.gov]; Peck, Charles [Peck.Charles@epa.gov]; Kyle, Lee [Kyle.Lee@epa.gov]; Corbin, Mark [Corbin.Mark@epa.gov]

Location: Microsoft Teams Meeting

Start: 5/26/2020 1:00:00 PM
End: 5/26/2020 2:00:00 PM

Recurrence: (none)

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To: Sinnathamby, Sumathy [sinnathamby.sumathy@epa.gov]; Muela, Stephen [muela.stephen@epa.gov]; Otte, Briana [otte.briana@epa.gov]; Doucoure, Cynthia [Doucoure.Cynthia@epa.gov]; Paisley-Jones, Claire [Paisley-Jones.Claire@epa.gov]; Suarez, Mark [Suarez.Mark@epa.gov]; Rossmeisl, Colleen [Rossmeisl.Colleen@epa.gov]; Donovan, Elizabeth [Donovan.Elizabeth@epa.gov]; Rossmeisl, Colleen [Rossmeisl.Colleen@epa.gov]; Connolly, Jennifer [Connolly.Jennifer@epa.gov]; Suarez, Mark [Suarez.Mark@epa.gov]; Paisley-Jones, Claire [Paisley-Jones.Claire@epa.gov]; Doucoure, Cynthia [Doucoure.Cynthia@epa.gov]; Otte, Briana [otte.briana@epa.gov]; Muela, Stephen [muela.stephen@epa.gov]; Sinnathamby, Sumathy [sinnathamby.sumathy@epa.gov]

CC: Corbin, Mark [Corbin.Mark@epa.gov]; Kyle, Lee [Kyle.Lee@epa.gov]; Peck, Charles [Peck.Charles@epa.gov]; Crews, Kristy [crews.kristy@epa.gov]; Kiernan, Brian [Kiernan.Brian@epa.gov]; Farruggia, Frank [Farruggia.Frank@epa.gov]; Summers, Holly [summers.holly@epa.gov]; Spatz, Dana [Spatz.Dana@epa.gov]; Louie-Juzwiak, Rosanna [Louie-Juzwiak.Rosanna@epa.gov]; Hafner, Sarah [hafner.sarah@epa.gov]; Bohaty, Rochelle [Bohaty.Rochelle@epa.gov]; Bohaty, Rochelle [Bohaty.Rochelle@epa.gov]; Hafner, Sarah [hafner.sarah@epa.gov]; Louie-Juzwiak, Rosanna [Louie-Juzwiak.Rosanna@epa.gov]; Spatz, Dana [Spatz.Dana@epa.gov]; Summers, Holly [summers.holly@epa.gov]; Farruggia, Frank [Farruggia.Frank@epa.gov]; Kiernan, Brian [Kiernan.Brian@epa.gov]; Crews, Kristy [crews.kristy@epa.gov]; Peck, Charles [Peck.Charles@epa.gov]; Kyle, Lee [Kyle.Lee@epa.gov]; Corbin, Mark [Corbin.Mark@epa.gov]

Location: Microsoft Teams Meeting

Start: 6/2/2020 1:00:00 PM
End: 6/2/2020 2:00:00 PM

Recurrence: (none)

Ex. 5 Deliberative Process (DP)

Join Microsoft Teams Meeting

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Appointment

From: Donovan, Elizabeth [Donovan.Elizabeth@epa.gov]
Sent: 5/18/2020 1:35:11 PM
To: Rossmeisl, Colleen [Rossmeisl.Colleen@epa.gov]; Connolly, Jennifer [Connolly.Jennifer@epa.gov]; Suarez, Mark [Suarez.Mark@epa.gov]; Paisley-Jones, Claire [Paisley-Jones.Claire@epa.gov]; Doucoure, Cynthia [Doucoure.Cynthia@epa.gov]; Otte, Briana [otte.briana@epa.gov]; Muela, Stephen [muela.stephen@epa.gov]; Sinnathamby, Sumathy [sinnathamby.sumathy@epa.gov]
CC: Bohaty, Rochelle [Bohaty.Rochelle@epa.gov]; Hafner, Sarah [hafner.sarah@epa.gov]; Louie-Juzwiak, Rosanna [Louie-Juzwiak.Rosanna@epa.gov]; Spatz, Dana [Spatz.Dana@epa.gov]; Summers, Holly [summers.holly@epa.gov]; Farruggia, Frank [Farruggia.Frank@epa.gov]; Kiernan, Brian [Kiernan.Brian@epa.gov]; Crews, Kristy [crews.kristy@epa.gov]; Peck, Charles [Peck.Charles@epa.gov]; Kyle, Lee [Kyle.Lee@epa.gov]; Corbin, Mark [Corbin.Mark@epa.gov]

Subject: Herbicide ESA: Use/Usage Discussions
Location: Microsoft Teams Meeting

Start: 5/19/2020 1:00:00 PM
End: 5/19/2020 2:00:00 PM
Show Time As: Tentative

Importance: High

Recurrence: Weekly
every Tuesday from 9:00 AM to 10:00 AM

Ex. 5 Deliberative Process (DP)

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Appointment

From: OPP_EMPM [OPP_EMPM@epa.gov]
Sent: 8/7/2019 7:14:16 PM
To: OPP_EMPM [OPP_EMPM@epa.gov]; OPP EFED [OPP_EFED@epa.gov]
CC: Matuszko, Jan [Matuszko.Jan@epa.gov]; Lazarus, Rebecca [lazarus.rebecca@epa.gov]; Lin, James [lin.james@epa.gov]; Gardner, William [gardner.william@epa.gov]; Eckel, William [Eckel.William@epa.gov]; Duncan, Aja [duncan.aja@epa.gov]; Jones, LindaV [Jones.LindaV@epa.gov]; Lin, Sheng [Lin.Sheng@epa.gov]; Spatz, Dana [Spatz.Dana@epa.gov]; Judkins, Donna [Judkins.Donna@epa.gov]; Fowler, Jerrett [fowler.jerrett@epa.gov]; Shamblen, Richard [Shamblen.Richard@epa.gov]; Wait, Monica [Wait.Monica@epa.gov]; Khan, Faruque [Khan.Faruque@epa.gov]; Corbin, Mark [Corbin.Mark@epa.gov]; White, Katrina [White.Katrina@epa.gov]; Ruhman, Mohammed [Ruhman.Mohammed@epa.gov]; Sutton, Cheryl [Sutton.Cheryl@epa.gov]; Blankinship, Amy [Blankinship.Amy@epa.gov]; Hu, Sophia [hu.sophia@epa.gov]; Sankula, Sujatha [Sankula.Sujatha@epa.gov]; Stewart, Troy [Stewart.Troy@epa.gov]; Kovack, David [Kovack.David@epa.gov]; Housenger, Justin [Housenger.Justin@epa.gov]; Echeverria, Marietta [Echeverria.Marietta@epa.gov]; Harwood, Douglas [harwood.douglas@epa.gov]; Summers, Holly [summers.holly@epa.gov]; Douglass, Cameron [douglass.cameron@epa.gov]; Milians, Karen [Milians.Karen@epa.gov]; Kyle, Lee [Kyle.Lee@epa.gov]; Voelker, Nicole [voelker.nicole@epa.gov]; Kiernan, Brian [Kiernan.Brian@epa.gov]; Montague, Brian [Montague.Brian@epa.gov]; Li, Houbao [Li.Houbao@epa.gov]

Subject: Reminder: Agenda & Abstracts: EMPM Fall 2019 Meeting
Location: First Floor Conference Room

Start: 10/16/2019 1:00:00 PM
End: 10/16/2019 8:00:00 PM
Show Time As: Tentative

Updated agenda order

Dear EFED:

The Fall 2019 EMPM meeting will be held on Wednesday, October 16th from 9:00am to 4:00 pm in the first floor conference room. The topic will be Incorporation of Usage Data in Ecological Risk Assessments. Please stay tuned for additional information as the meeting date approaches. We hope to see you there.

Best regards,

Rebecca Lazarus & Zoe Ruge
EMPM Co-Chairs

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Environmental Modeling Public Meeting (EMPM) Agenda – October 16, 2019
Topic: Incorporation of Pesticide Usage Data into Environmental Exposure and Ecological Risk Assessments

Time (EDT)	Presentation Title	Presenter(s)
9:00 - 9:15	Welcome and Introductions Opening Remarks	Zoe Ruge and Rebecca Lazarus (EFED, U.S. EPA) Brian Anderson, (EFED, U.S. EPA)
	Updates	
9:15 - 9:25	Updates on Approaches for Quantitative Use of Surface Water Monitoring Data in Pesticide Drinking Water Assessments	Rochelle Bohaty (EFED, U.S. EPA)
9:25 - 9:35	Update on Pesticide in Water Calculator (PWC) Scenarios	James (Trip) Hook (EFED, U.S. EPA)
9:35 - 9:45	Draft Greater Than Additive (GTA) Guidance	Edward Odenkirchen (EFED, U.S.EPA)
9:45 – 10:00	Draft Waiver Guidance for the Avian Sub-Acute Dietary Test	Edward Odenkirchen (EFED, U.S. EPA)
10:00 – 10:25	An Overview of Pesticide Usage Data Sources used by US EPA/OPP	Mark Suarez (BEAD, U.S. EPA)
10:25 - 10:40	**Break**	
	Morning Presentations	
10:40 - 11:05	Application of Pesticide Usage Data in Endangered Species Risk Assessments	Kristina Garber (EFED, U.S. EPA)
11:05 - 11:30	A Methodology for Quantifying National Pesticide Usage at the County Scale for Use in Endangered Species Risk Assessments	Michael Winchell (Stone Environmental)
11:30 - 11:55	Application of Pesticide Usage Information in Probabilistic Framework to Inform Listed Species Exposure	Chris Holmes (Applied Analysis Solutions, LLC)
11:55 - 1:00	**Lunch**	
	Afternoon Presentations	
1:00 - 1:25	Overview of the California Pesticide Use Reports Database	Kimberly Steinmann (California Department of Pesticide Regulation)
1:25 - 1:50	Pesticide Use Reporting (PUR) data and their use in characterizing pesticide exposure in surface water of California	Yina Xie and Xuyang Zhang (California Department of Pesticide Regulation)
1:50 - 2:15	Re-Scaling Pesticide Use Reporting Data to Support a Data-Driven Geospatial Modeling Framework Aiming to Access Pesticide Contamination in Surface Water	Dan Wang and Christopher DeMars (California Department of Pesticide Regulation)
2:15 - 2:30	**Break**	
2:30 - 2:55	Washington State Department of Agriculture Pesticide Use Program	Rachel Seman-Varner (Washington State Department of Agriculture Pesticide Use Program)
2:55 - 3:20	Sources of Usage Data Gathered in the Fight to Control Mosquitoes in Lee County, Florida	Ed Foley (Lee County Mosquito Control District)
3:20 - 3:45	Pesticide Use Patterns in Organized Mosquito Control Programs Throughout the United States	Daniel Markowski (Vector Disease Control International)
3:45 – 3:55	Closing Remarks	Zoe Ruge and Rebecca Lazarus (EFED, U.S. EPA)

Fall 2019 EMPM Abstracts

Title: An Overview of Pesticide Usage Data Sources used by US EPA/OPP

Presenters: Mark Suarez (BEAD, U.S. EPA)

Abstract: The U.S. EPA Office of Pesticide Programs relies upon pesticide use and usage information to inform regulatory decisions. These data come from a variety of public and commercial sources, each with inherent strengths and

weaknesses. This presentation will review the EPA's data quality requirements, primary usage data sources, and the usage information available and the limitations of each source. Additionally, the totality of the available pesticide usage data for both agricultural and non-agricultural use will be explored.

Title: Application of Pesticide Usage Data in Endangered Species Risk Assessments

Presenters: Kristina Garber (EFED, U.S. EPA)

Abstract: Pesticide usage data are an important consideration when determining if the use of a pesticide is Likely or Not Likely to Adversely Affect an endangered or threatened species. Data on the percent of a treated crop can be applied to landcover data representing potential use sites of that crop. The result is an estimate of the number of treated acres for that crop. The total estimated area for all crops registered for the assessed chemical can be used to estimate the extent of a species range and the number of individuals of the species that may be exposed to the assessed pesticide.

Title: A Methodology for Quantifying National Pesticide Usage at the County Scale for Use in Endangered Species Risk Assessments

Presenters: Michael Winchell, Sebastian Castro-Tanzi, Jonnie Dunne, Paul Whatling (Stone Environmental)

Abstract: Endangered species risk assessments require that pesticide usage be understood and quantified probabilistically. This quantified usage information can play a role at multiple stages in the risk assessment process, including co-occurrence analysis, exposure assessment, and a weight-of-evidence analysis. The resolution of usage data, including the spatial unit and use site level of aggregation, are important aspects that determine the level of refinement possible with the data. Usage data considered by federal agencies in recent Biological Evaluations and Biological Opinions has been largely limited to state-level usage estimates, with some exceptions in locations such as California. However, pesticide usage by crop group at the county-level can be estimated from best available, publicly available nationwide data sources. In this study, several methods to generate these estimates were developed and tested using malathion as a case study. These methods were evaluated against observed crop group county-level annual malathion usage from the Pesticide Use Reporting (PUR) database in California. The best performing method considered county-level total usage, state-level crop group usage, and potential usage based on CDL crop acreage, NASS survey data crop acreage and malathion label use rates. Potential usage describes how much pesticide could be used over a given region and crop group if all potential use sites were treated at maximum label rates. The actual percent of potential usage, which is equivalent to Percent Crop Treated at maximum label rates, was also quantified at the county and crop group level. The methodology developed was applied nationally using seven years of malathion usage data (2010-2016) resulting in probability distributions of both annual usage and actual percent of potential usage. The pesticide usage data sources and the estimation and analysis methodologies developed represent an unbiased and reproducible approach to maximizing the utility of publicly available pesticide usage data that can be applied to better inform national endangered species risk assessments.

Title: Application of pesticide usage information in a probabilistic framework to inform listed species exposure

Presenters: Christopher M. Holmes[1], Joshua Amos[2], Nathan Snyder[2], Matt Kern[2], James Cowles[3] and Kevin Henry[3]

[1]*Applied Analysis Solutions LLC, Berryville, VA, USA*
[2]*Waterborne Environmental Inc., Leesburg, VA, USA*
[3]*NovaSource / Tessenderlo Kerley, Inc., Phoenix, AZ USA*

Abstract: Identification and incorporation of pesticide usage information into the environmental exposure and ecological risk process is an area of interest as expressed in EPA's "*Proposed Revised Method for National Level Endangered Species Risk Assessment Process for Biological Evaluations of Pesticides*." The application of probabilistic usage information represents a key element of risk characterization and species protection strategies. This presentation will describe how relevant field-level pesticide application information (*e.g.*, application rate, percent of field treated) can be extracted from available sources and utilized in a probabilistic framework developed by the Generic Endangered Species Task Force (GESTF). This framework is nationally applicable to current species ranges, critical habitat, or range delineations as they may be amended over time. The methodology evaluates pesticide applications and potential exposure within designated species ranges, utilizing available spatial information on use sites and species locations. Results are summarized into a

quantitative index describing the species range utilizing multiple trials within a probabilistic simulation. An example will be presented illustrating the approach with specific usage data and labeled use applied to existing delineation of a species range.

Title: Re-Scaling Pesticide Use Reporting Data to Support a Data-Driven Geospatial Modeling Framework Aiming to Access Pesticide Contamination in Surface Water

Presenters: Dan Wang and Christopher DeMars (California Department of Pesticide Regulation)

Abstract: The Department of Pesticide Regulation (DPR) uses surface water contamination data in two important ways: as a component of dietary risk assessment and to prevent and respond to pesticide concentrations above levels considered to pose a risk to human health or aquatic life. Knowledge regarding the status and trend of pesticides in surface waters is important in assessing risks. Conventional statistical methods that investigate spatial (e.g., status) or temporal (e.g., trend) patterns focusing on concentration data alone do not work well because monitoring data tend to have intermittent, irregular, and insufficient sampling coverage. DPR is developing a new data-driven, geospatial modeling framework that supports exposure assessment. To achieve this, DPR needs to identify attributes that could affect the fate and transport of pesticides in the aquatic environment and amass them into an extensive database. We organize the attributes that include the pesticide use history, weather history, and watershed characteristics, according to the catchment where each monitoring site is located and the entire contributing watershed to that catchment. In this presentation, we will describe the approach used to re-scale the pesticide use data reported to California's Pesticide Use Reporting Database to the catchment and watershed levels. We will also discuss how the data-driven modeling framework can be used to interpret existing monitoring data to support risk assessments and risk-management decisions.

Title: Overview of the California Pesticide Use Reports database

Presenter: Kimberly Steinmann (California Department of Pesticide Regulation)

Abstract: The Pesticide Use Report database, or PUR as it is often called, contains a wealth of pesticide data that can be useful for many different types of analyses. The goal of this presentation is to offer an overview of what data is available, the many different ways it is currently used in California, and how it can be accessed in the hopes that it might inspire new ideas for pesticide analyses.

Title: Pesticide Use Reporting (PUR) data and their use in modeling for pesticide exposure and risk assessment in aquatic environments

Presenters: Xuyang Zhang, Yina Xie, and Yuzhou Luo (California Department of Pesticide Regulation)

Abstract: California's pesticide use reporting (PUR) program is recognized as the most comprehensive of its kind in the world. Under the program, all agricultural pesticide use and other professional applications in residential areas must be reported to California Department of Pesticide Regulation (DPR). PUR data provide detailed information of pesticide applications, including location (at the 1 sq. mile section level for agricultural uses and the county level for urban uses), time (per application for agricultural uses and monthly summary for urban uses), application rate, and site (e.g., crops, urban structural, and landscape). PUR data have been used by DPR's Surface Water Protection Program (SWPP) on risk and exposure assessments for pesticides in surface water. Early efforts with the use data were associated with spatial data analysis to identify hotspots for pesticide residue occurrence as well as use patterns associated with high runoff potential. Later, systematic approaches are incorporated into the Surface Water Prioritization Model, where PUR data are utilized with pesticide physicochemical properties and landscape characteristics to prioritize the chemicals and areas of interest for surface water monitoring conducted by SWPP. PUR data are also used to drive physically-based models including PRZM and SWAT for advanced modeling of pesticide fate and transport. PUR data are used to develop pesticide application scenarios for PRZM and SWAT models. The use-based, watershed-scaled modeling is typically used to evaluate spatial and temporal distribution of pesticides in surface waters for post-use risk assessment, baseline of pesticide contamination, and effectiveness of BMPs. In this presentation, SWPP staff will showcase the use of PUR data in supporting DPR's regulatory approach and mitigation practices to reduce pesticide exposures to aquatic ecosystems.

Title: Washington State Department of Agriculture Pesticide Use Program

Presenters: Rachel Seman-Varner and Gary Bahr (WSDA Natural Resource Assessment Section)

Abstract: Comprehensive pesticide use data is essential to assess the impacts of pesticides on water resources. States' approaches to the collection of pesticide use data vary. Typical pesticide use is assessed as part of the Washington State Department of Agriculture's (WSDA) Natural Resources Assessment Section (NRAS). Pesticide use, surface water monitoring, and agricultural land use mapping are all critical elements in the state Pesticide Management Strategy to evaluate and potentially mitigate impacts to Endangered Species Act (ESA) listed species. Because agricultural lands may coincide with critical habitat, it is essential that current region-specific use patterns are understood in order to determine and manage potential risk. NRAS meets with commodity groups including growers, consultants, commissions, cooperative extension agents, registrants, and other industry representatives to collect typical pesticide use information for specific crops grown in specific regions. To be considered representative of typical pesticide use practices, groups must represent commercial producers from a variety of farm sizes and a minimum of 30 percent of the statewide acreage. Initial NRAS collection events were organized from 2005 to 2014 and included 38 different crops. Typical pesticide use patterns are compared to agricultural land use and surface water quality data and related through crop use profiles, active ingredient use summaries, and spatially, through use intensity maps. NRAS is currently updating information for specific commodities and pesticides of concern. Meetings with representatives of cranberry and potato (Eastern and Western WA) industries were conducted in spring 2019. Changes in products and patterns are being compared to the most recent data (from 2010) for each commodity. In the future, NRAS will focus on improving the quality of the data and summary products, and comparing use patterns over time. Under the state-initiated plan, WSDA will facilitate the incorporation of typical pesticide use data into the federal ESA consultation process to ensure decisions made in Washington are based on current and accurate state and region-specific data to develop mitigation measures that protect endangered species, are practical to implement, and preserve the economic viability of agriculture in Washington State.

Title: Sources of usage data gathered in the fight to control mosquitoes in Lee county, Florida

Presenter: Ed Foley (Lee Country Mosquito Control District)

Abstract: The application of pesticides in the mosquito control industry is highly specialized and differs significantly from agricultural and commercial pest control. Public health mosquito control has unique product formulations, application techniques, equipment, usage sites, and treatment frequencies that should be accounted for when modeling environmental exposure and ecological risk. As an end user of pesticides, Lee County Mosquito Control District (LCMCD) is a stakeholder in the accurate evaluation of products by the Environmental Protection Agency. LCMCD hopes to offer insight into real world applications of pesticides for public health mosquito control from an end users perspective focusing on the area wide treatments for adult mosquito control and current record keeping practices.

Title: Pesticide Use Patterns in Organized Mosquito Control Programs Throughout the United States.

Presenter: Daniel Markowski (Vector Disease Control International)

Abstract: Spraying for adult mosquitoes may often be perceived as the principle treatment method for mosquito control programs, however it is important to note that most programs utilize an integrated management approach which includes source reduction (eliminating larval habitats), surveillance, biological control, larvicides, and education. Adulticides play a vital role when mosquito numbers exceed local threshold limits, such as when flooding causes extreme numbers of nuisance mosquitoes or when there are outbreaks of disease. Excessive use of pesticides increase the costs associated with operating a program, contribute to pesticide resistance, and increase exposure to non-target organisms. Therefore, applications by organized mosquito control programs are limited and based on the proper analysis of mosquito population data. Mosquito control applications are also limited by current label language and the bionomics of local mosquito species combined with disease risks. Theoretical pesticide use scenarios intent on delineating application risks should rely on current application and pesticide use data, but cannot be the only means to determine potential use patterns. This presentation will discuss the American Mosquito Control Association's (AMCA) pesticide usage data and its implications for predictive pesticide use modeling.

Appointment

From: Connolly, Jennifer [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C807828D47064F349FC01C6CDCD4FA94-CONNOLLY, J]
Sent: 4/29/2020 10:33:01 PM
To: Connolly, Jennifer [Connolly.Jennifer@epa.gov]; Bohaty, Rochelle [Bohaty.Rochelle@epa.gov]; Spatz, Dana [Spatz.Dana@epa.gov]; Louie-Juzwiak, Rosanna [Louie-Juzwiak.Rosanna@epa.gov]; Stebbins, Katherine [Stebbins.Katherine@epa.gov]; Hafner, Sarah [hafner.sarah@epa.gov]; Donovan, Elizabeth [Donovan.Elizabeth@epa.gov]; Rossmeisl, Colleen [Rossmeisl.Colleen@epa.gov]; Sinnathamby, Sumathy [sinnathamby.sumathy@epa.gov]; Muela, Stephen [muela.stephen@epa.gov]; Summers, Holly [summers.holly@epa.gov]
CC: Kyle, Lee [Kyle.Lee@epa.gov]

Subject: Glyphosate Use/UDL crosswalk
Location: Microsoft Teams Meeting

Start: 5/4/2020 1:30:00 PM
End: 5/4/2020 2:30:00 PM
Show Time As: Busy

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Appointment

From: Donovan, Elizabeth [Donovan.Elizabeth@epa.gov]
Sent: 5/18/2020 3:11:14 PM
To: Rossmeisl, Colleen [Rossmeisl.Colleen@epa.gov]; Connolly, Jennifer [Connolly.Jennifer@epa.gov]; Suarez, Mark [Suarez.Mark@epa.gov]; Paisley-Jones, Claire [Paisley-Jones.Claire@epa.gov]; Doucoure, Cynthia [Doucoure.Cynthia@epa.gov]; Otte, Briana [otte.briana@epa.gov]; Muela, Stephen [muela.stephen@epa.gov]; Sinnathamby, Sumathy [sinnathamby.sumathy@epa.gov]; Garber, Kristina [Garber.Kristina@epa.gov]
CC: Bohaty, Rochelle [Bohaty.Rochelle@epa.gov]; Hafner, Sarah [hafner.sarah@epa.gov]; Louie-Juzwiak, Rosanna [Louie-Juzwiak.Rosanna@epa.gov]; Spatz, Dana [Spatz.Dana@epa.gov]; Summers, Holly [summers.holly@epa.gov]; Farruggia, Frank [Farruggia.Frank@epa.gov]; Kiernan, Brian [Kiernan.Brian@epa.gov]; Crews, Kristy [crews.kristy@epa.gov]; Peck, Charles [Peck.Charles@epa.gov]; Kyle, Lee [Kyle.Lee@epa.gov]; Corbin, Mark [Corbin.Mark@epa.gov]

Subject: Herbicide ESA: Use/Usage Discussions
Location: Microsoft Teams Meeting

Start: 5/19/2020 1:00:00 PM
End: 5/19/2020 2:00:00 PM
Show Time As: Tentative

Importance: High

Recurrence: Weekly
every Tuesday from 9:00 AM to 10:00 AM

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Appointment

From: OPP_EMPM [OPP_EMPM@epa.gov]
Sent: 10/15/2019 4:22:30 PM
To: OPP EFED [OPP_EFED@epa.gov]
CC: Matuszko, Jan [Matuszko.Jan@epa.gov]; Lazarus, Rebecca [lazarus.rebecca@epa.gov]; Lin, James [lin.james@epa.gov]; Gardner, William [gardner.william@epa.gov]; Eckel, William [Eckel.William@epa.gov]; Duncan, Aja [duncan.aja@epa.gov]; Jones, LindaV [Jones.LindaV@epa.gov]; Lin, Sheng [Lin.Sheng@epa.gov]; Spatz, Dana [Spatz.Dana@epa.gov]; Judkins, Donna [Judkins.Donna@epa.gov]; Fowler, Jerrett [fowler.jerrett@epa.gov]; Shamblen, Richard [Shamblen.Richard@epa.gov]; Wait, Monica [Wait.Monica@epa.gov]; Khan, Faruque [Khan.Faruque@epa.gov]; Corbin, Mark [Corbin.Mark@epa.gov]; White, Katrina [White.Katrina@epa.gov]; Ruhman, Mohammed [Ruhman.Mohammed@epa.gov]; Sutton, Cheryl [Sutton.Cheryl@epa.gov]; Blankinship, Amy [Blankinship.Amy@epa.gov]; Hu, Sophia [hu.sophia@epa.gov]; Sankula, Sujatha [Sankula.Sujatha@epa.gov]; Stewart, Troy [Stewart.Troy@epa.gov]; Kovack, David [Kovack.David@epa.gov]; Housenger, Justin [Housenger.Justin@epa.gov]; Echeverria, Marietta [Echeverria.Marietta@epa.gov]; Harwood, Douglas [harwood.douglas@epa.gov]; Summers, Holly [summers.holly@epa.gov]; Douglass, Cameron [douglass.cameron@epa.gov]; Milians, Karen [Milians.Karen@epa.gov]; Kyle, Lee [Kyle.Lee@epa.gov]; Voelker, Nicole [voelker.nicole@epa.gov]; Kiernan, Brian [Kiernan.Brian@epa.gov]; Montague, Brian [Montague.Brian@epa.gov]; Li, Houbao [Li.Houbao@epa.gov]

Subject: Reminder: Agenda & Abstracts: EMPM Fall 2019 Meeting
Location: First Floor Conference Room

Start: 10/16/2019 1:00:00 PM
End: 10/16/2019 8:00:00 PM
Show Time As: Tentative

Updated agenda order

Dear EFED:

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Best regards,

Rebecca Lazarus & Zoe Ruge
EMPM Co-Chairs

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Environmental Modeling Public Meeting (EMPM) Agenda – October 16, 2019
Topic: Incorporation of Pesticide Usage Data into Environmental Exposure and Ecological Risk Assessments

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11:05 - 11:30	A Methodology for Quantifying National Pesticide Usage at the County Scale for Use in Endangered Species Risk Assessments	Michael Winchell (Stone Environmental)
11:30 - 11:55	Application of Pesticide Usage Information in Probabilistic Framework to Inform Listed Species Exposure	Chris Holmes (Applied Analysis Solutions, LLC)
11:55 - 1:00	**Lunch**	
	Afternoon Presentations	
1:00 - 1:25	Overview of the California Pesticide Use Reports Database	Kimberly Steinmann (California Department of Pesticide Regulation)
1:25 - 1:50	Pesticide Use Reporting (PUR) data and their use in characterizing pesticide exposure in surface water of California	Yina Xie and Xuyang Zhang (California Department of Pesticide Regulation)
1:50 - 2:15	Re-Scaling Pesticide Use Reporting Data to Support a Data-Driven Geospatial Modeling Framework Aiming to Access Pesticide Contamination in Surface Water	Dan Wang and Christopher DeMars (California Department of Pesticide Regulation)
2:15 - 2:30	**Break**	
2:30 - 2:55	Washington State Department of Agriculture Pesticide Use Program	Rachel Seman-Varner (Washington State Department of Agriculture Pesticide Use Program)
2:55 - 3:20	Sources of Usage Data Gathered in the Fight to Control Mosquitoes in Lee County, Florida	Ed Foley (Lee County Mosquito Control District)
3:20 - 3:45	Pesticide Use Patterns in Organized Mosquito Control Programs Throughout the United States	Daniel Markowski (Vector Disease Control International)
3:45 – 3:55	Closing Remarks	Zoe Ruge and Rebecca Lazarus (EFED, U.S. EPA)

Fall 2019 EMPM Abstracts

Title: An Overview of Pesticide Usage Data Sources used by US EPA/OPP

Presenters: Mark Suarez (BEAD, U.S. EPA)

Abstract: The U.S. EPA Office of Pesticide Programs relies upon pesticide use and usage information to inform regulatory decisions. These data come from a variety of public and commercial sources, each with inherent strengths and

weaknesses. This presentation will review the EPA's data quality requirements, primary usage data sources, and the usage information available and the limitations of each source. Additionally, the totality of the available pesticide usage data for both agricultural and non-agricultural use will be explored.

Title: Application of Pesticide Usage Data in Endangered Species Risk Assessments

Presenters: Kristina Garber (EFED, U.S. EPA)

Abstract: Pesticide usage data are an important consideration when determining if the use of a pesticide is Likely or Not Likely to Adversely Affect an endangered or threatened species. Data on the percent of a treated crop can be applied to landcover data representing potential use sites of that crop. The result is an estimate of the number of treated acres for that crop. The total estimated area for all crops registered for the assessed chemical can be used to estimate the extent of a species range and the number of individuals of the species that may be exposed to the assessed pesticide.

Title: A Methodology for Quantifying National Pesticide Usage at the County Scale for Use in Endangered Species Risk Assessments

Presenters: Michael Winchell, Sebastian Castro-Tanzi, Jonnie Dunne, Paul Whatling (Stone Environmental)

Abstract: Endangered species risk assessments require that pesticide usage be understood and quantified probabilistically. This quantified usage information can play a role at multiple stages in the risk assessment process, including co-occurrence analysis, exposure assessment, and a weight-of-evidence analysis. The resolution of usage data, including the spatial unit and use site level of aggregation, are important aspects that determine the level of refinement possible with the data. Usage data considered by federal agencies in recent Biological Evaluations and Biological Opinions has been largely limited to state-level usage estimates, with some exceptions in locations such as California. However, pesticide usage by crop group at the county-level can be estimated from best available, publicly available nationwide data sources. In this study, several methods to generate these estimates were developed and tested using malathion as a case study. These methods were evaluated against observed crop group county-level annual malathion usage from the Pesticide Use Reporting (PUR) database in California. The best performing method considered county-level total usage, state-level crop group usage, and potential usage based on CDL crop acreage, NASS survey data crop acreage and malathion label use rates. Potential usage describes how much pesticide could be used over a given region and crop group if all potential use sites were treated at maximum label rates. The actual percent of potential usage, which is equivalent to Percent Crop Treated at maximum label rates, was also quantified at the county and crop group level. The methodology developed was applied nationally using seven years of malathion usage data (2010-2016) resulting in probability distributions of both annual usage and actual percent of potential usage. The pesticide usage data sources and the estimation and analysis methodologies developed represent an unbiased and reproducible approach to maximizing the utility of publicly available pesticide usage data that can be applied to better inform national endangered species risk assessments.

Title: Application of pesticide usage information in a probabilistic framework to inform listed species exposure

Presenters: Christopher M. Holmes[1], Joshua Amos[2], Nathan Snyder[2], Matt Kern[2], James Cowles[3] and Kevin Henry[3]

[1]*Applied Analysis Solutions LLC, Berryville, VA, USA*
[2]*Waterborne Environmental Inc., Leesburg, VA, USA*
[3]*NovaSource / Tessenderlo Kerley, Inc., Phoenix, AZ USA*

Abstract: Identification and incorporation of pesticide usage information into the environmental exposure and ecological risk process is an area of interest as expressed in EPA's "*Proposed Revised Method for National Level Endangered Species Risk Assessment Process for Biological Evaluations of Pesticides*." The application of probabilistic usage information represents a key element of risk characterization and species protection strategies. This presentation will describe how relevant field-level pesticide application information (*e.g.*, application rate, percent of field treated) can be extracted from available sources and utilized in a probabilistic framework developed by the Generic Endangered Species Task Force (GESTF). This framework is nationally applicable to current species ranges, critical habitat, or range delineations as they may be amended over time. The methodology evaluates pesticide applications and potential exposure within designated species ranges, utilizing available spatial information on use sites and species locations. Results are summarized into a

quantitative index describing the species range utilizing multiple trials within a probabilistic simulation. An example will be presented illustrating the approach with specific usage data and labeled use applied to existing delineation of a species range.

Title: Re-Scaling Pesticide Use Reporting Data to Support a Data-Driven Geospatial Modeling Framework Aiming to Access Pesticide Contamination in Surface Water

Presenters: Dan Wang and Christopher DeMars (California Department of Pesticide Regulation)

Abstract: The Department of Pesticide Regulation (DPR) uses surface water contamination data in two important ways: as a component of dietary risk assessment and to prevent and respond to pesticide concentrations above levels considered to pose a risk to human health or aquatic life. Knowledge regarding the status and trend of pesticides in surface waters is important in assessing risks. Conventional statistical methods that investigate spatial (e.g., status) or temporal (e.g., trend) patterns focusing on concentration data alone do not work well because monitoring data tend to have intermittent, irregular, and insufficient sampling coverage. DPR is developing a new data-driven, geospatial modeling framework that supports exposure assessment. To achieve this, DPR needs to identify attributes that could affect the fate and transport of pesticides in the aquatic environment and amass them into an extensive database. We organize the attributes that include the pesticide use history, weather history, and watershed characteristics, according to the catchment where each monitoring site is located and the entire contributing watershed to that catchment. In this presentation, we will describe the approach used to re-scale the pesticide use data reported to California's Pesticide Use Reporting Database to the catchment and watershed levels. We will also discuss how the data-driven modeling framework can be used to interpret existing monitoring data to support risk assessments and risk-management decisions.

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Presenter: Kimberly Steinmann (California Department of Pesticide Regulation)

Abstract: The Pesticide Use Report database, or PUR as it is often called, contains a wealth of pesticide data that can be useful for many different types of analyses. The goal of this presentation is to offer an overview of what data is available, the many different ways it is currently used in California, and how it can be accessed in the hopes that it might inspire new ideas for pesticide analyses.

Title: Pesticide Use Reporting (PUR) data and their use in modeling for pesticide exposure and risk assessment in aquatic environments

Presenters: Xuyang Zhang, Yina Xie, and Yuzhou Luo (California Department of Pesticide Regulation)

Abstract: California's pesticide use reporting (PUR) program is recognized as the most comprehensive of its kind in the world. Under the program, all agricultural pesticide use and other professional applications in residential areas must be reported to California Department of Pesticide Regulation (DPR). PUR data provide detailed information of pesticide applications, including location (at the 1 sq. mile section level for agricultural uses and the county level for urban uses), time (per application for agricultural uses and monthly summary for urban uses), application rate, and site (e.g., crops, urban structural, and landscape). PUR data have been used by DPR's Surface Water Protection Program (SWPP) on risk and exposure assessments for pesticides in surface water. Early efforts with the use data were associated with spatial data analysis to identify hotspots for pesticide residue occurrence as well as use patterns associated with high runoff potential. Later, systematic approaches are incorporated into the Surface Water Prioritization Model, where PUR data are utilized with pesticide physicochemical properties and landscape characteristics to prioritize the chemicals and areas of interest for surface water monitoring conducted by SWPP. PUR data are also used to drive physically-based models including PRZM and SWAT for advanced modeling of pesticide fate and transport. PUR data are used to develop pesticide application scenarios for PRZM and SWAT models. The use-based, watershed-scaled modeling is typically used to evaluate spatial and temporal distribution of pesticides in surface waters for post-use risk assessment, baseline of pesticide contamination, and effectiveness of BMPs. In this presentation, SWPP staff will showcase the use of PUR data in supporting DPR's regulatory approach and mitigation practices to reduce pesticide exposures to aquatic ecosystems.

Title: Washington State Department of Agriculture Pesticide Use Program

Presenters: Rachel Seman-Varner and Gary Bahr (WSDA Natural Resource Assessment Section)

Abstract: Comprehensive pesticide use data is essential to assess the impacts of pesticides on water resources. States' approaches to the collection of pesticide use data vary. Typical pesticide use is assessed as part of the Washington State Department of Agriculture's (WSDA) Natural Resources Assessment Section (NRAS). Pesticide use, surface water monitoring, and agricultural land use mapping are all critical elements in the state Pesticide Management Strategy to evaluate and potentially mitigate impacts to Endangered Species Act (ESA) listed species. Because agricultural lands may coincide with critical habitat, it is essential that current region-specific use patterns are understood in order to determine and manage potential risk. NRAS meets with commodity groups including growers, consultants, commissions, cooperative extension agents, registrants, and other industry representatives to collect typical pesticide use information for specific crops grown in specific regions. To be considered representative of typical pesticide use practices, groups must represent commercial producers from a variety of farm sizes and a minimum of 30 percent of the statewide acreage. Initial NRAS collection events were organized from 2005 to 2014 and included 38 different crops. Typical pesticide use patterns are compared to agricultural land use and surface water quality data and related through crop use profiles, active ingredient use summaries, and spatially, through use intensity maps. NRAS is currently updating information for specific commodities and pesticides of concern. Meetings with representatives of cranberry and potato (Eastern and Western WA) industries were conducted in spring 2019. Changes in products and patterns are being compared to the most recent data (from 2010) for each commodity. In the future, NRAS will focus on improving the quality of the data and summary products, and comparing use patterns over time. Under the state-initiated plan, WSDA will facilitate the incorporation of typical pesticide use data into the federal ESA consultation process to ensure decisions made in Washington are based on current and accurate state and region-specific data to develop mitigation measures that protect endangered species, are practical to implement, and preserve the economic viability of agriculture in Washington State.

Title: Sources of usage data gathered in the fight to control mosquitoes in Lee county, Florida

Presenter: Ed Foley (Lee Country Mosquito Control District)

Abstract: The application of pesticides in the mosquito control industry is highly specialized and differs significantly from agricultural and commercial pest control. Public health mosquito control has unique product formulations, application techniques, equipment, usage sites, and treatment frequencies that should be accounted for when modeling environmental exposure and ecological risk. As an end user of pesticides, Lee County Mosquito Control District (LCMCD) is a stakeholder in the accurate evaluation of products by the Environmental Protection Agency. LCMCD hopes to offer insight into real world applications of pesticides for public health mosquito control from an end users perspective focusing on the area wide treatments for adult mosquito control and current record keeping practices.

Title: Pesticide Use Patterns in Organized Mosquito Control Programs Throughout the United States.

Presenter: Daniel Markowski (Vector Disease Control International)

Abstract: Spraying for adult mosquitoes may often be perceived as the principle treatment method for mosquito control programs, however it is important to note that most programs utilize an integrated management approach which includes source reduction (eliminating larval habitats), surveillance, biological control, larvicides, and education. Adulticides play a vital role when mosquito numbers exceed local threshold limits, such as when flooding causes extreme numbers of nuisance mosquitoes or when there are outbreaks of disease. Excessive use of pesticides increase the costs associated with operating a program, contribute to pesticide resistance, and increase exposure to non-target organisms. Therefore, applications by organized mosquito control programs are limited and based on the proper analysis of mosquito population data. Mosquito control applications are also limited by current label language and the bionomics of local mosquito species combined with disease risks. Theoretical pesticide use scenarios intent on delineating application risks should rely on current application and pesticide use data, but cannot be the only means to determine potential use patterns. This presentation will discuss the American Mosquito Control Association's (AMCA) pesticide usage data and its implications for predictive pesticide use modeling.

Appointment

From: OPP_EMPM [OPP_EMPM@epa.gov]
Sent: 10/3/2019 2:58:01 PM
To: OPP EFED [OPP_EFED@epa.gov]
CC: Matuszko, Jan [Matuszko.Jan@epa.gov]; Lazarus, Rebecca [lazarus.rebecca@epa.gov]; Lin, James [lin.james@epa.gov]; Gardner, William [gardner.william@epa.gov]; Eckel, William [Eckel.William@epa.gov]; Duncan, Aja [duncan.aja@epa.gov]; Jones, LindaV [Jones.LindaV@epa.gov]; Lin, Sheng [Lin.Sheng@epa.gov]; Spatz, Dana [Spatz.Dana@epa.gov]; Judkins, Donna [Judkins.Donna@epa.gov]; Fowler, Jerrett [fowler.jerrett@epa.gov]; Shamblen, Richard [Shamblen.Richard@epa.gov]; Wait, Monica [Wait.Monica@epa.gov]; Khan, Faruque [Khan.Faruque@epa.gov]; Corbin, Mark [Corbin.Mark@epa.gov]; White, Katrina [White.Katrina@epa.gov]; Ruhman, Mohammed [Ruhman.Mohammed@epa.gov]; Sutton, Cheryl [Sutton.Cheryl@epa.gov]; Blankinship, Amy [Blankinship.Amy@epa.gov]; Hu, Sophia [hu.sophia@epa.gov]; Sankula, Sujatha [Sankula.Sujatha@epa.gov]; Stewart, Troy [Stewart.Troy@epa.gov]; Kovack, David [Kovack.David@epa.gov]; Housenger, Justin [Housenger.Justin@epa.gov]; Echeverria, Marietta [Echeverria.Marietta@epa.gov]; Harwood, Douglas [harwood.douglas@epa.gov]; Summers, Holly [summers.holly@epa.gov]; Douglass, Cameron [douglass.cameron@epa.gov]; Milians, Karen [Milians.Karen@epa.gov]; Kyle, Lee [Kyle.Lee@epa.gov]; Voelker, Nicole [voelker.nicole@epa.gov]

Subject: Agenda & Abstracts: EMPM Fall 2019 Meeting
Location: First Floor Conference Room

Start: 10/16/2019 1:00:00 PM
End: 10/16/2019 8:00:00 PM
Show Time As: Tentative

Updated agenda order

Dear EFED:

The Fall 2019 EMPM meeting will be held on Wednesday, October 16th from 9:00am to 4:00 pm in the first floor conference room. The topic will be Incorporation of Usage Data in Ecological Risk Assessments. Please stay tuned for additional information as the meeting date approaches. We hope to see you there.

Best regards,

Rebecca Lazarus & Zoe Ruge
EMPM Co-Chairs

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Environmental Modeling Public Meeting (EMPM) Agenda – October 16, 2019

Topic: Incorporation of Pesticide Usage Data into Environmental Exposure and Ecological Risk Assessments

Time (EDT)	Presentation Title	Presenter(s)
9:00 - 9:15	Welcome and Introductions Opening Remarks	Zoe Ruge and Rebecca Lazarus (EFED, U.S. EPA) Brian Anderson, (EFED, U.S. EPA)
	Updates	
9:15 - 9:25	Updates on Approaches for Quantitative Use of Surface Water Monitoring Data in Pesticide Drinking Water Assessments	Rochelle Bohaty (EFED, U.S. EPA)
9:25 - 9:35	Update on Pesticide in Water Calculator (PWC) Scenarios	Nelson Thurman (EFED, U.S. EPA)
9:35 - 9:45	Draft Greater Than Additive (GTA) Guidance	Edward Odenkirchen (EFED, U.S.EPA)
9:45 – 10:00	Draft Waiver Guidance for the Avian Sub-Acute Dietary Test	Edward Odenkirchen (EFED, U.S. EPA)
10:00 – 10:25	An Overview of Pesticide Usage Data Sources used by US EPA/OPP	Mark Suarez (BEAD, U.S. EPA)
10:25 - 10:40	**Break**	
	Morning Presentations	
10:40 - 11:05	Application of Pesticide Usage Data in Endangered Species Risk Assessments	Kristina Garber (EFED, U.S. EPA)
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1:00 - 1:25	Overview of the California Pesticide Use Reports Database	Kimberly Steinmann (California Department of Pesticide Regulation)
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1:50 - 2:15	Re-Scaling Pesticide Use Reporting Data to Support a Data-Driven Geospatial Modeling Framework Aiming to Access Pesticide Contamination in Surface Water	Dan Wang and Christopher DeMars (California Department of Pesticide Regulation)
2:15 - 2:30	**Break**	
2:30 - 2:55	Washington State Department of Agriculture Pesticide Use Program	Rachel Seman-Varner (Washington State Department of Agriculture Pesticide Use Program)
2:55 - 3:20	Sources of Usage Data Gathered in the Fight to Control Mosquitoes in Lee County, Florida	Ed Foley (Lee County Mosquito Control District)
3:20 - 3:45	Pesticide Use Patterns in Organized Mosquito Control Programs Throughout the United States	Daniel Markowski (Vector Disease Control International)
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Fall 2019 EMPM Abstracts

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Title: Application of pesticide usage information in a probabilistic framework to inform listed species exposure

Presenters: Christopher M. Holmes[1], Joshua Amos[2], Nathan Snyder[2], Matt Kern[2], James Cowles[3] and Kevin Henry[3]

[1]*Applied Analysis Solutions LLC, Berryville, VA, USA*
[2]*Waterborne Environmental Inc., Leesburg, VA, USA*
[3]*NovaSource / Tessenderlo Kerley, Inc., Phoenix, AZ USA*

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Appointment

From: Connolly, Jennifer [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C807828D47064F349FC01C6CDCD4FA94-CONNOLLY, J]
Sent: 5/4/2020 12:46:34 PM
To: Bohaty, Rochelle [Bohaty.Rochelle@epa.gov]; Spatz, Dana [Spatz.Dana@epa.gov]; Louie-Juzwiak, Rosanna [Louie-Juzwiak.Rosanna@epa.gov]; Stebbins, Katherine [Stebbins.Katherine@epa.gov]; Hafner, Sarah [hafner.sarah@epa.gov]; Donovan, Elizabeth [Donovan.Elizabeth@epa.gov]; Rossmeisl, Colleen [Rossmeisl.Colleen@epa.gov]; Sinnathamby, Sumathy [sinnathamby.sumathy@epa.gov]; Muela, Stephen [muela.stephen@epa.gov]; Summers, Holly [summers.holly@epa.gov]
CC: Kyle, Lee [Kyle.Lee@epa.gov]

Subject: Glyphosate Use/UDL crosswalk
Location: Microsoft Teams Meeting

Start: 5/4/2020 1:30:00 PM
End: 5/4/2020 2:30:00 PM
Show Time As: Tentative

Ex. 5 Deliberative Process (DP)

Join Microsoft Teams Meeting

Ex. 6 – Conference Code

Local numbers | Reset PIN | Learn more about Teams | Meeting options

Appointment

From: Berwald, Derek [Berwald.Derek@epa.gov]
Sent: 2/7/2018 7:54:49 PM
To: Garber, Kristina [Garber.Kristina@epa.gov]

Subject: Accepted: FW: discuss draft method for incorporating usage data (PCT) into ESA method
Location: DCRoomPYS7100/Potomac-Yard-One

Start: 2/15/2018 2:00:00 PM
End: 2/15/2018 3:00:00 PM
Show Time As: Busy

Appointment

From: Kaul, Monisha [Kaul.Monisha@epa.gov]
Sent: 2/7/2018 7:10:01 PM
To: Garber, Kristina [Garber.Kristina@epa.gov]

Subject: Tentative: FW: discuss draft method for incorporating usage data (PCT) into ESA method
Location: DCRoomPYS7100/Potomac-Yard-One

Start: 2/15/2018 2:00:00 PM
End: 2/15/2018 3:00:00 PM
Show Time As: Busy

Appointment

From: Microsoft Outlook [MicrosoftExchange329e71ec88ae4615bbc36ab6ce41109e@usepa.onmicrosoft.com]
Sent: 2/7/2018 1:02:15 PM
To: Garber, Kristina [Garber.Kristina@epa.gov]

Subject: Meeting Forward Notification: discuss draft method for incorporating usage data (PCT) into ESA method
Location: DCRoomPYS7100/Potomac-Yard-One

Start: 2/15/2018 2:00:00 PM
End: 2/15/2018 3:00:00 PM

Recurrence: (none)

Appointment

From: White, Katrina [White.Katrina@epa.gov]
Sent: 2/7/2018 1:01:56 PM
To: Garber, Kristina [Garber.Kristina@epa.gov]

Subject: Accepted: discuss draft method for incorporating usage data (PCT) into ESA method
Location: DCRoomPYS7100/Potomac-Yard-One

Start: 2/15/2018 2:00:00 PM
End: 2/15/2018 3:00:00 PM
Show Time As: Busy

Appointment

From: Sims, Diann [Sims.Diann@epa.gov]
Sent: 2/14/2018 3:22:09 PM
To: Garber, Kristina [Garber.Kristina@epa.gov]

Subject: Accepted: discuss draft method for incorporating usage data (PCT) into ESA method
Location: DCRoomPYS7100/Potomac-Yard-One

Start: 2/15/2018 2:00:00 PM
End: 2/15/2018 3:00:00 PM
Show Time As: Busy

Appointment

From: DCRoomPYS7100/Potomac-Yard-One [DCRoomPYS7100@epa.gov]
Sent: 2/14/2018 2:50:01 PM
To: Garber, Kristina [Garber.Kristina@epa.gov]

Subject: Accepted: discuss draft method for incorporating usage data (PCT) into ESA method
Location: DCRoomPYS7100/Potomac-Yard-One

Start: 2/15/2018 2:00:00 PM
End: 2/15/2018 3:00:00 PM

Recurrence: (none)

Appointment

From: Garber, Kristina [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C4FBFBF6569041F4BD559765E027AA31-KRISTINA GARBER]
Sent: 2/6/2018 10:12:34 PM
To: Garber, Kristina [Garber.Kristina@epa.gov]; Rossmeisl, Colleen [Rossmeisl.Colleen@epa.gov]; Panger, Melissa [Panger.Melissa@epa.gov]; Peck, Charles [Peck.Charles@epa.gov]; Lennartz, Steven [Lennartz.Steven@epa.gov]; Connolly, Jennifer [Connolly.Jennifer@epa.gov]; Blankinship, Amy [Blankinship.Amy@epa.gov]; Donovan, Elizabeth [Donovan.Elizabeth@epa.gov]; Eckel, William [Eckel.William@epa.gov]; White, Katrina [White.Katrina@epa.gov]; Paisley-Jones, Claire [Paisley-Jones.Claire@epa.gov]; Atwood, Donald [Atwood.Donald@epa.gov]; Sims, Diann [Sims.Diann@epa.gov]; Corbin, Mark [Corbin.Mark@epa.gov]; Anderson, Brian [anderson.brian@epa.gov]; Becker, Jonathan [Becker.Jonathan@epa.gov]; Myers, Clayton [Myers.Clayton@epa.gov]
CC: Spatz, Dana [Spatz.Dana@epa.gov]; Stebbins, Katherine [Stebbins.Katherine@epa.gov]; Jones, Arnet [Jones.Arnet@epa.gov]; Kiely, Timothy [Kiely.Timothy@epa.gov]; Kaul, Monisha [Kaul.Monisha@epa.gov]; Wyatt, TJ [Wyatt.Tj@epa.gov]; Suarez, Mark [Suarez.Mark@epa.gov]; Chism, William [Chism.Bill@epa.gov]; Berwald, Derek [Berwald.Derek@epa.gov]
BCC: DCRoomPYS7100/Potomac-Yard-One [DCRoomPYS7100@epa.gov]

Subject: discuss draft method for incorporating usage data (PCT) into ESA method
Location: DCRoomPYS7100/Potomac-Yard-One

Start: 2/15/2018 2:00:00 PM
End: 2/15/2018 3:00:00 PM
Show Time As: Busy

Appointment

From: Garber, Kristina [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C4FBFBF6569041F4BD559765E027AA31-KRISTINA GARBER]
Sent: 2/6/2018 10:12:34 PM
To: Garber, Kristina [Garber.Kristina@epa.gov]; Rossmeisl, Colleen [Rossmeisl.Colleen@epa.gov]; Panger, Melissa [Panger.Melissa@epa.gov]; Peck, Charles [Peck.Charles@epa.gov]; Lennartz, Steven [Lennartz.Steven@epa.gov]; Connolly, Jennifer [Connolly.Jennifer@epa.gov]; Blankinship, Amy [Blankinship.Amy@epa.gov]; Donovan, Elizabeth [Donovan.Elizabeth@epa.gov]; Eckel, William [Eckel.William@epa.gov]; White, Katrina [White.Katrina@epa.gov]; Paisley-Jones, Claire [Paisley-Jones.Claire@epa.gov]; Atwood, Donald [Atwood.Donald@epa.gov]; Sims, Diann [Sims.Diann@epa.gov]; Corbin, Mark [Corbin.Mark@epa.gov]; Anderson, Brian [anderson.brian@epa.gov]; Becker, Jonathan [Becker.Jonathan@epa.gov]; Myers, Clayton [Myers.Clayton@epa.gov]
CC: Spatz, Dana [Spatz.Dana@epa.gov]; Stebbins, Katherine [Stebbins.Katherine@epa.gov]; Jones, Arnet [Jones.Arnet@epa.gov]; Kiely, Timothy [Kiely.Timothy@epa.gov]; Kaul, Monisha [Kaul.Monisha@epa.gov]; Wyatt, TJ [Wyatt.Tj@epa.gov]; Suarez, Mark [Suarez.Mark@epa.gov]; Chism, William [Chism.Bill@epa.gov]; Berwald, Derek [Berwald.Derek@epa.gov]
BCC: DCRoomPYS7100/Potomac-Yard-One [DCRoomPYS7100@epa.gov]

Subject: discuss draft method for incorporating usage data (PCT) into ESA method
Attachments: Usage_step2_2-14-18(BEAD scientists).pptx; Methomyl SUUM.012918.Final.docx
Location: DCRoomPYS7100/Potomac-Yard-One

Start: 2/15/2018 2:00:00 PM
End: 2/15/2018 3:00:00 PM
Show Time As: Busy

Ex. 5 Deliberative Process (DP)

Ex. 6 – Conference Code

Appointment

From: Donovan, Elizabeth [Donovan.Elizabeth@epa.gov]
Sent: 5/18/2020 3:11:16 PM
To: Donovan, Elizabeth [Donovan.Elizabeth@epa.gov]; Rossmeisl, Colleen [Rossmeisl.Colleen@epa.gov]; Connolly, Jennifer [Connolly.Jennifer@epa.gov]; Suarez, Mark [Suarez.Mark@epa.gov]; Paisley-Jones, Claire [Paisley-Jones.Claire@epa.gov]; Doucoure, Cynthia [Doucoure.Cynthia@epa.gov]; Otte, Briana [otte.briana@epa.gov]; Muela, Stephen [muela.stephen@epa.gov]; Sinnathamby, Sumathy [sinnathamby.sumathy@epa.gov]; Garber, Kristina [Garber.Kristina@epa.gov]
CC: Bohaty, Rochelle [Bohaty.Rochelle@epa.gov]; Hafner, Sarah [hafner.sarah@epa.gov]; Louie-Juzwiak, Rosanna [Louie-Juzwiak.Rosanna@epa.gov]; Spatz, Dana [Spatz.Dana@epa.gov]; Summers, Holly [summers.holly@epa.gov]; Farruggia, Frank [Farruggia.Frank@epa.gov]; Kiernan, Brian [Kiernan.Brian@epa.gov]; Crews, Kristy [crews.kristy@epa.gov]; Peck, Charles [Peck.Charles@epa.gov]; Kyle, Lee [Kyle.Lee@epa.gov]; Corbin, Mark [Corbin.Mark@epa.gov]

Subject: Herbicide ESA: Use/Usage Discussions
Location: Microsoft Teams Meeting

Start: 5/19/2020 1:00:00 PM
End: 5/19/2020 2:00:00 PM
Show Time As: Busy

Importance: High

Recurrence: Weekly
every Tuesday from 9:00 AM to 10:00 AM

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Join Microsoft Teams Meeting

Ex. 6 – Conference Code

Local numbers | Reset PIN | Learn more about Teams | Meeting options

Appointment

From: Microsoft Outlook [MicrosoftExchange329e71ec88ae4615bbc36ab6ce41109e@usepa.onmicrosoft.com]
Sent: 2/7/2018 6:40:17 PM
To: Garber, Kristina [Garber.Kristina@epa.gov]

Subject: Meeting Forward Notification: discuss draft method for incorporating usage data (PCT) into ESA method
Location: DCRoomPYS7100/Potomac-Yard-One

Start: 2/15/2018 2:00:00 PM
End: 2/15/2018 3:00:00 PM

Recurrence: (none)

Your meeting was forwarded

Becker, Jonathan has forwarded your meeting request to additional recipients.

Meeting

discuss draft method for incorporating usage data (PCT) into ESA method

Meeting Time

Thursday, February 15, 2018 9:00 AM-10:00 AM.

Recipients

Jones, Arnet
Kiely, Timothy
Kaul, Monisha
Wyatt, TJ
Suarez, Mark
Chism, William
Berwald, Derek

All times listed are in the following time zone: (UTC-05:00) Eastern Time (US & Canada)

Sent by Microsoft Exchange Server

Appointment

From: Microsoft Outlook [MicrosoftExchange329e71ec88ae4615bbc36ab6ce41109e@usepa.onmicrosoft.com]
Sent: 2/7/2018 1:02:15 PM
To: Garber, Kristina [Garber.Kristina@epa.gov]

Subject: Meeting Forward Notification: discuss draft method for incorporating usage data (PCT) into ESA method
Location: DCRoomPYS7100/Potomac-Yard-One

Start: 2/15/2018 2:00:00 PM
End: 2/15/2018 3:00:00 PM

Recurrence: (none)

Your meeting was forwarded

White, Katrina has forwarded your meeting request to additional recipients.

Meeting

discuss draft method for incorporating usage data (PCT) into ESA method

Meeting Time

Thursday, February 15, 2018 9:00 AM-10:00 AM.

Recipients

Spatz, Dana

Stebbins, Katherine

All times listed are in the following time zone: (UTC-05:00) Eastern Time (US & Canada)

Sent by Microsoft Exchange Server

Appointment

From: Corbin, Mark [Corbin.Mark@epa.gov]
Sent: 2/7/2018 11:59:36 AM
To: Garber, Kristina [Garber.Kristina@epa.gov]

Subject: Accepted: discuss draft method for incorporating usage data (PCT) into ESA method
Location: DCRoomPYS7100/Potomac-Yard-One

Start: 2/15/2018 2:00:00 PM
End: 2/15/2018 3:00:00 PM

Recurrence: (none)

Appointment

From: DCRoomPYS7100/Potomac-Yard-One [DCRoomPYS7100@epa.gov]
Sent: 2/14/2018 2:50:01 PM
To: Garber, Kristina [Garber.Kristina@epa.gov]

Subject: Accepted: discuss draft method for incorporating usage data (PCT) into ESA method
Location: DCRoomPYS7100/Potomac-Yard-One

Start: 2/15/2018 2:00:00 PM
End: 2/15/2018 3:00:00 PM

Recurrence: (none)

Your request was accepted.

Sent by Microsoft Exchange Server 2016

Appointment

From: Chism, William [Chism.Bill@epa.gov]
Sent: 2/8/2018 11:44:06 AM
To: Garber, Kristina [Garber.Kristina@epa.gov]

Subject: Accepted: discuss draft method for incorporating usage data (PCT) into ESA method
Location: DCRoomPYS7100/Potomac-Yard-One

Start: 2/15/2018 2:00:00 PM
End: 2/15/2018 3:00:00 PM

Recurrence: (none)

Appointment

From: Garber, Kristina [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C4FBFBF6569041F4BD559765E027AA31-KRISTINA GARBER]
Sent: 2/6/2018 10:12:33 PM
To: Rossmeisl, Colleen [Rossmeisl.Colleen@epa.gov]; Panger, Melissa [Panger.Melissa@epa.gov]; Peck, Charles [Peck.Charles@epa.gov]; Lennartz, Steven [Lennartz.Steven@epa.gov]; Connolly, Jennifer [Connolly.Jennifer@epa.gov]; Blankinship, Amy [Blankinship.Amy@epa.gov]; Donovan, Elizabeth [Donovan.Elizabeth@epa.gov]; Eckel, William [Eckel.William@epa.gov]; White, Katrina [White.Katrina@epa.gov]; Paisley-Jones, Claire [Paisley-Jones.Claire@epa.gov]; Atwood, Donald [Atwood.Donald@epa.gov]; Sims, Diann [Sims.Diann@epa.gov]; Corbin, Mark [Corbin.Mark@epa.gov]; 'Anderson, Brian' [anderson.brian@epa.gov]
BCC: DCRoomPYS7100/Potomac-Yard-One [DCRoomPYS7100@epa.gov]

Subject: discuss draft method for incorporating usage data (PCT) into ESA method
Location: DCRoomPYS7100/Potomac-Yard-One

Start: 2/15/2018 2:00:00 PM
End: 2/15/2018 3:00:00 PM
Show Time As: Tentative

Ex. 5 Deliberative Process (DP)

Ex. 6 – Conference Code

Appointment

From: Garber, Kristina [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C4FBFBF6569041F4BD559765E027AA31-KRISTINA GARBER]
Sent: 2/6/2018 9:52:40 PM
To: Panger, Melissa [Panger.Melissa@epa.gov]; Peck, Charles [Peck.Charles@epa.gov]; Lennartz, Steven [Lennartz.Steven@epa.gov]; Connolly, Jennifer [Connolly.Jennifer@epa.gov]; Blankinship, Amy [Blankinship.Amy@epa.gov]; Donovan, Elizabeth [Donovan.Elizabeth@epa.gov]; Eckel, William [Eckel.William@epa.gov]; White, Katrina [White.Katrina@epa.gov]; Rossmeisl, Colleen (Rossmeisl.Colleen@epa.gov) [Rossmeisl.Colleen@epa.gov]; Thurman, Nelson [Thurman.Nelson@epa.gov]; Barrett, Dena [Barrett.Dena@epa.gov]; Bohaty, Rochelle [Bohaty.Rochelle@epa.gov]; Khan, Faruque [Khan.Faruque@epa.gov]; Corbin, Mark [Corbin.Mark@epa.gov]; 'Anderson, Brian' [anderson.brian@epa.gov]; Odenkirchen, Edward [Odenkirchen.Edward@epa.gov]; 'Sappington, Keith' [sappington.keith@epa.gov]; 'Steeger, Thomas' [steeger.thomas@epa.gov]
BCC: DCRoomPYS10100/Potomac-Yard-One [DCRoomPYS10100@epa.gov]

Subject: discuss draft method for incorporating usage data (PCT) into ESA method
Location: DCRoomPYS10100/Potomac-Yard-One

Start: 2/13/2018 8:00:00 PM
End: 2/13/2018 9:00:00 PM
Show Time As: Tentative

Hello all,

The ESA team has working on the refined ESA method for steps 1 and 2. The current draft of the method involves incorporating usage data (specifically percent crop treated) into the determination of whether a species is likely or not likely to be adversely affected by a pesticide. The team would like to present the draft approach involving PCT to EFED scientists and get feedback.

Please let me know if there are other folks that should be added to this invite.

Thanks,
Kris

Conference p **Ex. 6 Personal Privacy (PP)**
Conference l

Appointment

From: Garber, Kristina [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C4FBFBF6569041F4BD559765E027AA31-KRISTINA GARBER]
Sent: 2/14/2018 2:49:54 PM
To: Rossmeisl, Colleen [Rossmeisl.Colleen@epa.gov]; Panger, Melissa [Panger.Melissa@epa.gov]; Peck, Charles [Peck.Charles@epa.gov]; Lennartz, Steven [Lennartz.Steven@epa.gov]; Connolly, Jennifer [Connolly.Jennifer@epa.gov]; Blankinship, Amy [Blankinship.Amy@epa.gov]; Donovan, Elizabeth [Donovan.Elizabeth@epa.gov]; Eckel, William [Eckel.William@epa.gov]; White, Katrina [White.Katrina@epa.gov]; Paisley-Jones, Claire [Paisley-Jones.Claire@epa.gov]; Atwood, Donald [Atwood.Donald@epa.gov]; Sims, Diann [Sims.Diann@epa.gov]; Corbin, Mark [Corbin.Mark@epa.gov]; Anderson, Brian [anderson.brian@epa.gov]; Becker, Jonathan [Becker.Jonathan@epa.gov]; Myers, Clayton [Myers.Clayton@epa.gov]
CC: Spatz, Dana [Spatz.Dana@epa.gov]; Stebbins, Katherine [Stebbins.Katherine@epa.gov]; Jones, Arnet [Jones.Arnet@epa.gov]; Kiely, Timothy [Kiely.Timothy@epa.gov]; Kaul, Monisha [Kaul.Monisha@epa.gov]; Wyatt, TJ [Wyatt.Tj@epa.gov]; Suarez, Mark [Suarez.Mark@epa.gov]; Chism, William [Chism.Bill@epa.gov]; Berwald, Derek [Berwald.Derek@epa.gov]
BCC: DCRoomPYS7100/Potomac-Yard-One [DCRoomPYS7100@epa.gov]

Subject: discuss draft method for incorporating usage data (PCT) into ESA method
Attachments: Usage_step2_2-14-18(BEAD scientists).pptx; Methomyl SUUM.012918.Final.docx
Location: DCRoomPYS7100/Potomac-Yard-One

Start: 2/15/2018 2:00:00 PM
End: 2/15/2018 3:00:00 PM
Show Time As: Tentative

Ex. 5 Deliberative Process (DP)

Ex. 6 – Conference Code

Appointment

From: Garber, Kristina [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C4FBFBF6569041F4BD559765E027AA31-KRISTINA GARBER]
Sent: 2/13/2018 6:47:16 PM
To: Panger, Melissa [Panger.Melissa@epa.gov]; Peck, Charles [Peck.Charles@epa.gov]; Lennartz, Steven [Lennartz.Steven@epa.gov]; Connolly, Jennifer [Connolly.Jennifer@epa.gov]; Blankinship, Amy [Blankinship.Amy@epa.gov]; Donovan, Elizabeth [Donovan.Elizabeth@epa.gov]; Eckel, William [Eckel.William@epa.gov]; White, Katrina [White.Katrina@epa.gov]; Rossmeisl, Colleen (Rossmeisl.Colleen@epa.gov) [Rossmeisl.Colleen@epa.gov]; Thurman, Nelson [Thurman.Nelson@epa.gov]; Barrett, Dena [Barrett.Dena@epa.gov]; Bohaty, Rochelle [Bohaty.Rochelle@epa.gov]; Khan, Faruque [Khan.Faruque@epa.gov]; Corbin, Mark [Corbin.Mark@epa.gov]; Anderson, Brian [anderson.brian@epa.gov]; Odenkirchen, Edward [Odenkirchen.Edward@epa.gov]; Sappington, Keith [sappington.keith@epa.gov]; Steeger, Thomas [steeger.thomas@epa.gov]
BCC: DCRoomPYS10100/Potomac-Yard-One [DCRoomPYS10100@epa.gov]

Subject: discuss draft method for incorporating usage data (PCT) into ESA method
Attachments: Methomyl SUUM.012918.Final.docx; Usage_step2_2-13-18.pptx
Location: DCRoomPYS10100/Potomac-Yard-One

Start: 2/13/2018 8:00:00 PM
End: 2/13/2018 9:00:00 PM
Show Time As: Tentative

Hello all,

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Please let me know if there are other folks that should be added to this invite.

Thanks,
Kris

Conference phone number: 1 (202) 991-0477
Conference ID: 9623976

Appointment

From: OPP_EMPM [OPP_EMPM@epa.gov]
Sent: 10/1/2019 1:09:48 PM
To: OPP EFED [OPP_EFED@epa.gov]
CC: Matuszko, Jan [Matuszko.Jan@epa.gov]; Lazarus, Rebecca [lazarus.rebecca@epa.gov]; Lin, James [lin.james@epa.gov]; Gardner, William [gardner.william@epa.gov]; Eckel, William [Eckel.William@epa.gov]; Duncan, Aja [duncan.aja@epa.gov]; Jones, LindaV [Jones.LindaV@epa.gov]; Lin, Sheng [Lin.Sheng@epa.gov]; Spatz, Dana [Spatz.Dana@epa.gov]; Judkins, Donna [Judkins.Donna@epa.gov]; Fowler, Jerrett [fowler.jerrett@epa.gov]; Shamblen, Richard [Shamblen.Richard@epa.gov]; Wait, Monica [Wait.Monica@epa.gov]; Khan, Faruque [Khan.Faruque@epa.gov]; Corbin, Mark [Corbin.Mark@epa.gov]; White, Katrina [White.Katrina@epa.gov]; Ruhman, Mohammed [Ruhman.Mohammed@epa.gov]; Sutton, Cheryl [Sutton.Cheryl@epa.gov]; Blankinship, Amy [Blankinship.Amy@epa.gov]; Hu, Sophia [hu.sophia@epa.gov]; Sankula, Sujatha [Sankula.Sujatha@epa.gov]; Stewart, Troy [Stewart.Troy@epa.gov]; Kovack, David [Kovack.David@epa.gov]; Housenger, Justin [Housenger.Justin@epa.gov]; Echeverria, Marietta [Echeverria.Marietta@epa.gov]

Subject: Agenda & Abstracts: EMPM Fall 2019 Meeting
Location: First Floor Conference Room

Start: 10/16/2019 1:00:00 PM
End: 10/16/2019 8:00:00 PM
Show Time As: Tentative

Dear EFED:

The Fall 2019 EMPM meeting will be held on Wednesday, October 16th from 9:00am to 4:00 pm in the first floor conference room. The topic will be Incorporation of Usage Data in Ecological Risk Assessments. Please stay tuned for additional information as the meeting date approaches. We hope to see you there.

Best regards,

Rebecca Lazarus & Zoe Ruge
EMPM Co-Chairs

Join Skype Meeting

Trouble Joining? Try Skype Web App

Join by phone

Toll number: Ex. 6 Personal Privacy (PP) (Dial-in Number) English (United States)

Find a local number

Conference ID: Ex. 6 Personal Privacy (PP)

Forgot your dial-in PIN? | Help

Environmental Modeling Public Meeting (EMPM) Agenda – October 16, 2019
Topic: Incorporation of Usage Data in Ecological Risk Assessments

Time (EDT)	Presentation Title	Presenter(s)
9:00 - 9:15	Welcome and Introductions Opening Remarks	Zoe Ruge and Rebecca Lazarus (EFED, U.S. EPA) Brian Anderson, (EFED, U.S. EPA)
	Updates	
9:15 - 9:25	Updates on Approaches for Quantitative Use of Surface Water Monitoring Data in Pesticide Drinking Water Assessments	Rochelle Bohaty (EFED, U.S. EPA)
9:25 - 9:35	Update on Pesticide in Water Calculator (PWC) Scenarios	Nelson Thurman (EFED, U.S. EPA)
9:35 - 9:45	Draft Greater Than Additive (GTA) Guidance	Edward Odenkirchen (EFED, U.S.EPA)
9:45 – 10:00	Draft Waiver Guidance for the Avian Sub-Acute Dietary Test	Edward Odenkirchen (EFED, U.S. EPA)
10:00 – 10:25	An Overview of Pesticide Usage Data Sources used by US EPA/OPP	Mark Suarez (BEAD, U.S. EPA)
10:25 - 10:40	**Break**	
	Morning Presentations	
10:40 - 11:05	Application of Pesticide Usage Data in Endangered Species Risk Assessments	Kristina Garber (EFED, U.S. EPA)
11:05 - 11:30	A Methodology for Quantifying National Pesticide Usage at the County Scale for Use in Endangered Species Risk Assessments	Michael Winchell (Stone Environmental)
11:30 - 11:55	Application of Pesticide Usage Information in Probabilistic Framework to Inform Listed Species Exposure	Chris Holmes (Applied Analysis Solutions, LLC)
11:55 - 1:00	**Lunch**	
	Afternoon Presentations	
1:00 - 1:25	Re-Scaling Pesticide Use Reporting Data to Support a Data-Driven Geospatial Modeling Framework Aiming to Access Pesticide Contamination in Surface Water	Dan Wang and Christopher DeMars (California Department of Pesticide Regulation)
1:25 - 1:50	Overview of the California Pesticide Use Reports Database	Kimberly Steinmann (California Department of Pesticide Regulation)
1:50 - 2:15	Pesticide Use Reporting (PUR) Data and Their Use in Modeling for Pesticide Exposure and Risk Assessment in Aquatic Environments	Xuyang Zhang and Yina Xie (California Department of Pesticide Regulation)
2:15 - 2:30	**Break**	
2:30 - 2:55	Washington State Department of Agriculture Pesticide Use Program	Rachel Seman-Varner (Washington State Department of Agriculture Pesticide Use Program)
2:55 - 3:20	Sources of Usage Data Gathered in the Fight to Control Mosquitoes in Lee County, Florida	Ed Foley (Lee County Mosquito Control District)
3:20 - 3:45	Pesticide Use Patterns in Organized Mosquito Control Programs Throughout the United States	Daniel Markowski (Vector Disease Control International)
3:45 – 3:55	Closing Remarks	Zoe Ruge and Rebecca Lazarus (EFED, U.S. EPA)

Fall 2019 EMPM Abstracts

Title: An Overview of Pesticide Usage Data Sources used by US EPA/OPP

Presenters: Mark Suarez (BEAD, U.S. EPA)

Abstract: The U.S. EPA Office of Pesticide Programs relies upon pesticide use and usage information to inform regulatory decisions. These data come from a variety of public and commercial sources, each with inherent strengths and weaknesses. This presentation will review the EPA's data quality requirements, primary usage data sources, and the usage information available and the limitations of each source. Additionally, the totality of the available pesticide usage data for both agricultural and non-agricultural use will be explored.

Title: Application of Pesticide Usage Data in Endangered Species Risk Assessments

Presenters: Kristina Garber (EFED, U.S. EPA)

Abstract: Pesticide usage data are an important consideration when determining if the use of a pesticide is Likely or Not Likely to Adversely Affect an endangered or threatened species. Data on the percent of a treated crop can be applied to landcover data representing potential use sites of that crop. The result is an estimate of the number of treated acres for that crop. The total estimated area for all crops registered for the assessed chemical can be used to estimate the extent of a species range and the number of individuals of the species that may be exposed to the assessed pesticide.

Title: A Methodology for Quantifying National Pesticide Usage at the County Scale for Use in Endangered Species Risk Assessments

Presenters: Michael Winchell, Sebastian Castro-Tanzi, Jonnie Dunne, Paul Whatling (Stone Environmental)

Abstract: Endangered species risk assessments require that pesticide usage be understood and quantified probabilistically. This quantified usage information can play a role at multiple stages in the risk assessment process, including co-occurrence analysis, exposure assessment, and a weight-of-evidence analysis. The resolution of usage data, including the spatial unit and use site level of aggregation, are important aspects that determine the level of refinement possible with the data. Usage data considered by federal agencies in recent Biological Evaluations and Biological Opinions has been largely limited to state-level usage estimates, with some exceptions in locations such as California. However, pesticide usage by crop group at the county-level can be estimated from best available, publicly available nationwide data sources. In this study, several methods to generate these estimates were developed and tested using malathion as a case study. These methods were evaluated against observed crop group county-level annual malathion usage from the Pesticide Use Reporting (PUR) database in California. The best performing method considered county-level total usage, state-level crop group usage, and potential usage based on CDL crop acreage, NASS survey data crop acreage and malathion label use rates. Potential usage describes how much pesticide could be used over a given region and crop group if all potential use sites were treated at maximum label rates. The actual percent of potential usage, which is equivalent to Percent Crop Treated at maximum label rates, was also quantified at the county and crop group level. The methodology developed was applied nationally using seven years of malathion usage data (2010-2016) resulting in probability distributions of both annual usage and actual percent of potential usage. The pesticide usage data sources and the estimation and analysis methodologies developed represent an unbiased and reproducible approach to maximizing the utility of publicly available pesticide usage data that can be applied to better inform national endangered species risk assessments.

Title: Application of pesticide usage information in a probabilistic framework to inform listed species exposure

Presenters: Christopher M. Holmes[1], Joshua Amos[2], Nathan Snyder[2], Matt Kern[2], James Cowles[3] and Kevin Henry[3]

[1]*Applied Analysis Solutions LLC, Berryville, VA, USA*
[2]*Waterborne Environmental Inc., Leesburg, VA, USA*
[3]*NovaSource / Tessenderlo Kerley, Inc., Phoenix, AZ USA*

Abstract: Identification and incorporation of pesticide usage information into the environmental exposure and ecological risk process is an area of interest as expressed in EPA's "*Proposed Revised Method for National Level Endangered Species Risk Assessment Process for Biological Evaluations of Pesticides*." The application of probabilistic usage information represents a key element of risk characterization and species protection strategies. This presentation will describe how relevant field-level pesticide application information (*e.g.*, application rate, percent of field treated) can be extracted from available sources and utilized in a probabilistic framework developed by the Generic Endangered Species Task Force (GESTF). This framework is nationally applicable to current species ranges, critical habitat, or range delineations as they may be amended over time. The methodology evaluates pesticide applications and potential exposure within designated species ranges, utilizing available spatial information on use sites and species locations. Results are summarized into a quantitative index describing the species range utilizing multiple trials within a probabilistic simulation. An example will be presented illustrating the approach with specific usage data and labeled use applied to existing delineation of a species range.

Title: Re-Scaling Pesticide Use Reporting Data to Support a Data-Driven Geospatial Modeling Framework Aiming to Access Pesticide Contamination in Surface Water

Presenters: Dan Wang and Christopher DeMars (California Department of Pesticide Regulation)

Abstract: The Department of Pesticide Regulation (DPR) uses surface water contamination data in two important ways: as a component of dietary risk assessment and to prevent and respond to pesticide concentrations above levels considered to pose a risk to human health or aquatic life. Knowledge regarding the status and trend of pesticides in surface waters is important in assessing risks. Conventional statistical methods that investigate spatial (e.g., status) or temporal (e.g., trend) patterns focusing on concentration data alone do not work well because monitoring data tend to have intermittent, irregular, and insufficient sampling coverage. DPR is developing a new data-driven, geospatial modeling framework that supports exposure assessment. To achieve this, DPR needs to identify attributes that could affect the fate and transport of pesticides in the aquatic environment and amass them into an extensive database. We organize the attributes that include the pesticide use history, weather history, and watershed characteristics, according to the catchment where each monitoring site is located and the entire contributing watershed to that catchment. In this presentation, we will describe the approach used to re-scale the pesticide use data reported to California's Pesticide Use Reporting Database to the catchment and watershed levels. We will also discuss how the data-driven modeling framework can be used to interpret existing monitoring data to support risk assessments and risk-management decisions.

Title: Overview of the California Pesticide Use Reports database

Presenter: Kimberly Steinmann (California Department of Pesticide Regulation)

Abstract: The Pesticide Use Report database, or PUR as it is often called, contains a wealth of pesticide data that can be useful for many different types of analyses. The goal of this presentation is to offer an overview of what data is available, the many different ways it is currently used in California, and how it can be accessed in the hopes that it might inspire new ideas for pesticide analyses.

Title: Pesticide Use Reporting (PUR) data and their use in modeling for pesticide exposure and risk assessment in aquatic environments

Presenters: Xuyang Zhang, Yina Xie, and Yuzhou Luo (California Department of Pesticide Regulation)

Abstract: California's pesticide use reporting (PUR) program is recognized as the most comprehensive of its kind in the world. Under the program, all agricultural pesticide use and other professional applications in residential areas must be reported to California Department of Pesticide Regulation (DPR). PUR data provide detailed information of pesticide applications, including location (at the 1 sq. mile section level for agricultural uses and the county level for urban uses), time (per application for agricultural uses and monthly summary for urban uses), application rate, and site (e.g., crops, urban structural, and landscape). PUR data have been used by DPR's Surface Water Protection Program (SWPP) on risk and exposure assessments for pesticides in surface water. Early efforts with the use data were associated with spatial data analysis to identify hotspots for pesticide residue occurrence as well as use patterns associated with high runoff potential. Later, systematic approaches are incorporated into the Surface Water Prioritization Model, where PUR data are utilized with pesticide physicochemical properties and landscape characteristics to prioritize the chemicals and areas of interest for surface water monitoring conducted by SWPP. PUR data are also used to drive physically-based models including PRZM and SWAT for advanced modeling of pesticide fate and transport. PUR data are used to develop pesticide application scenarios for PRZM and SWAT models. The use-based, watershed-scaled modeling is typically used to evaluate spatial and temporal distribution of pesticides in surface waters for post-use risk assessment, baseline of pesticide contamination, and effectiveness of BMPs. In this presentation, SWPP staff will showcase the use of PUR data in supporting DPR's regulatory approach and mitigation practices to reduce pesticide exposures to aquatic ecosystems.

Title: Washington State Department of Agriculture Pesticide Use Program

Presenters: Rachel Seman-Varner and Gary Bahr (WSDA Natural Resource Assessment Section)

Abstract: Comprehensive pesticide use data is essential to assess the impacts of pesticides on water resources. States' approaches to the collection of pesticide use data vary. Typical pesticide use is assessed as part of the Washington State Department of Agriculture's (WSDA) Natural Resources Assessment Section (NRAS). Pesticide use, surface water monitoring, and agricultural land use mapping are all critical elements in the state Pesticide Management Strategy to evaluate and potentially mitigate impacts to Endangered Species Act (ESA) listed species. Because agricultural lands may coincide with critical habitat, it is essential that current region-specific use patterns are understood in order to determine and manage potential risk. NRAS meets with commodity groups including growers, consultants, commissions, cooperative extension agents, registrants, and other industry representatives to collect typical pesticide use information for specific crops grown in specific regions. To be considered representative of typical pesticide use practices, groups must represent commercial producers from a variety of farm sizes and a minimum of 30 percent of the statewide acreage. Initial NRAS collection events were organized from 2005 to 2014 and included 38 different crops. Typical pesticide use patterns are compared to agricultural land use and surface water quality data and related through crop use profiles, active ingredient use summaries, and spatially, through use intensity maps. NRAS is currently updating information for specific commodities and pesticides of concern. Meetings with representatives of cranberry and potato (Eastern and Western WA) industries were conducted in spring 2019. Changes in products and patterns are being compared to the most recent data (from 2010) for each commodity. In the future, NRAS will focus on improving the quality of the data and summary products, and comparing use patterns over time. Under the state-initiated plan, WSDA will facilitate the incorporation of typical pesticide use data into the federal ESA consultation process to ensure decisions made in Washington are based on current and accurate state and region-specific data to develop mitigation measures that protect endangered species, are practical to implement, and preserve the economic viability of agriculture in Washington State.

Title: Sources of usage data gathered in the fight to control mosquitoes in Lee county, Florida

Presenter: Ed Foley (Lee Country Mosquito Control District)

Abstract: The application of pesticides in the mosquito control industry is highly specialized and differs significantly from agricultural and commercial pest control. Public health mosquito control has unique product formulations, application techniques, equipment, usage sites, and treatment frequencies that should be accounted for when modeling environmental exposure and ecological risk. As an end user of pesticides, Lee County Mosquito Control District (LCMCD) is a stakeholder in the accurate evaluation of products by the Environmental Protection Agency. LCMCD hopes to offer insight into real world applications of pesticides for public health mosquito control from an end users perspective focusing on the area wide treatments for adult mosquito control and current record keeping practices.

Title: Pesticide Use Patterns in Organized Mosquito Control Programs Throughout the United States.

Presenter: Daniel Markowski (Vector Disease Control International)

Abstract: Spraying for adult mosquitoes may often be perceived as the principle treatment method for mosquito control programs, however it is important to note that most programs utilize an integrated management approach which includes source reduction (eliminating larval habitats), surveillance, biological control, larvicides, and education. Adulticides play a vital role when mosquito numbers exceed local threshold limits, such as when flooding causes extreme numbers of nuisance mosquitoes or when there are outbreaks of disease. Excessive use of pesticides increase the costs associated with operating a program, contribute to pesticide resistance, and increase exposure to non-target organisms. Therefore, applications by organized mosquito control programs are limited and based on the proper analysis of mosquito population data. Mosquito control applications are also limited by current label language and the bionomics of local mosquito species combined with disease risks. Theoretical pesticide use scenarios intent on delineating application risks should rely on current application and pesticide use data, but cannot be the only means to determine potential use patterns. This presentation will discuss the American Mosquito Control Association's (AMCA) pesticide usage data and its implications for predictive pesticide use modeling.

Appointment

From: Jarboe, Stephen [Jarboe.Steve@epa.gov]
Sent: 2/10/2020 11:11:31 PM
To: Jarboe, Stephen [Jarboe.Steve@epa.gov]; Lenners, Alicia [lenners.alicia@epa.gov]; Otte, Briana [otte.briana@epa.gov]; Suarez, Mark [Suarez.Mark@epa.gov]; Doucoure, Cynthia [Doucoure.Cynthia@epa.gov]; Johnson, Hope [Johnson.Hope@epa.gov]; Paisley-Jones, Claire [Paisley-Jones.Claire@epa.gov]

Subject: ULUT Meeting in 9771 Ex. 6 Personal Privacy (PP) if anyone is teleworking.
Attachments: 2015 Sulfuryl Fluoride PCT Update.pdf; SLUA_Cryolite (075101) 2014.doc; Methomyl_SUUM_reformated_stage1.xlsx
Location: DCRoomPYS9771/Potomac-Yard-One

Start: 2/11/2020 3:00:00 PM
End: 2/11/2020 4:00:00 PM
Show Time As: Busy

Recurrence: Weekly
every Tuesday from 10:00 AM to 11:00 AM

1) Chemical Meeting Team Reviews: Please talk about your chemical meetings for this week and next along with your preparation plans for those meetings

2) New Request from Christina Swartz (older SLUA—will need to be updated for sure) :

Ex. 5 Deliberative Process (DP)

3) Extended (ESA SUUM) review/update:

Telone (Lindsey) for Services: Completed and going thru Management review. Shout out to Lindsey Ex. 6 Personal Privacy (PP)

Chlorpyrifos (Lindsey)

Atrazine/Simazine/Propazine (Cynthia/Briana)

Metolachlor/S-Metolachlor (Briana)

Carbaryl/Malathion "undrafting" of SUUM along with Crosswalk needed by EFED (Claire—Welcome Back, too!)

Glyphosate SUUM (Claire)

SUUM format for EFED (attached) (Mark)

Hope's Tentative Schedule of Extended SUUM Deliverables Inc. SLN PDFs (this was from mid-January so there is probably more to this by now):

ESA EXTENDED SUUM WORK SCHEDULE 2020

Active Ingredient	*Requested Date by EFED/Services*	*Proposed Date by BEAD/SIAB*	*Agreed Upon Date*	*Date Delivered*
Telone	**Ex. 5 Deliberative Process (DP)**			
Metolachlor/ s-metolachlor				
Chlorpyrifos				
Atrazine				
Simazine				
Propazine				
Glyphosate				
Thiamethoxam				
Clothianidin				
Imidacloprid				

4) Last but not least☺ usage related request:
Bifenthrin PCT memo (Alicia and Nikhil) for HED and PRD

Message

From: Doucoure, Cynthia [Doucoure.Cynthia@epa.gov]
Sent: 6/25/2020 5:13:04 PM
To: Jarboe, Stephen [Jarboe.Steve@epa.gov]
Subject: FW: atrazine and simazine non-ag PCTs

FYI...

Cynthia Doucoure
Environmental Protection Agency
OCSPP/OPP/BEAD, 7503P
Potomac Yard S-9331
(703) 308-8133

From: Connolly, Jennifer <Connolly.Jennifer@epa.gov>
Sent: Thursday, June 25, 2020 12:52 PM
To: Suarez, Mark <Suarez.Mark@epa.gov>; Paisley-Jones, Claire <Paisley-Jones.Claire@epa.gov>; Doucoure, Cynthia <Doucoure.Cynthia@epa.gov>; Otte, Briana <otte.briana@epa.gov>; Crowley, Matthew <Crowley.Matthew@epa.gov>
Cc: Anderson, Brian <Anderson.Brian@epa.gov>; Spatz, Dana <Spatz.Dana@epa.gov>; Kyle, Lee <Kyle.Lee@epa.gov>; Corbin, Mark <Corbin.Mark@epa.gov>; Garber, Kristina <Garber.Kristina@epa.gov>; Farruggia, Frank <Farruggia.Frank@epa.gov>; Donovan, Elizabeth <Donovan.Elizabeth@epa.gov>; Rossmeisl, Colleen <Rossmeisl.Colleen@epa.gov>; Sinnathamby, Sumathy <sinnathamby.sumathy@epa.gov>; Muela, Stephen <muela.stephen@epa.gov>; Hafner, Sarah <hafner.sarah@epa.gov>; Louie-Juzwiak, Rosanna <Louie-Juzwiak.Rosanna@epa.gov>; Peck, Charles <Peck.Charles@epa.gov>
Subject: atrazine and simazine non-ag PCTs

BEAD Team,

Ex. 5 Deliberative Process (DP)

Thank you for your feedback!

Jen

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Jennifer Connolly, Senior Scientist
Environmental Information Support Branch

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****

Appointment

From: Garber, Kristina [Garber.Kristina@epa.gov]
Sent: 2/25/2018 4:24:39 PM
To: Garber, Kristina [Garber.Kristina@epa.gov]; Panger, Melissa [Panger.Melissa@epa.gov]; Peck, Charles [Peck.Charles@epa.gov]; Lennartz, Steven [Lennartz.Steven@epa.gov]; Connolly, Jennifer [Connolly.Jennifer@epa.gov]; Blankinship, Amy [Blankinship.Amy@epa.gov]; Donovan, Elizabeth [Donovan.Elizabeth@epa.gov]; Eckel, William [Eckel.William@epa.gov]; White, Katrina [White.Katrina@epa.gov]; Rossmeisl, Colleen [Rossmeisl.Colleen@epa.gov]; Thurman, Nelson [Thurman.Nelson@epa.gov]; Barrett, Dena [Barrett.Dena@epa.gov]; Bohaty, Rochelle [Bohaty.Rochelle@epa.gov]; Khan, Faruque [Khan.Faruque@epa.gov]; Corbin, Mark [Corbin.Mark@epa.gov]; Anderson, Brian [Anderson.Brian@epa.gov]; Odenkirchen, Edward [Odenkirchen.Edward@epa.gov]; Sappington, Keith [Sappington.Keith@epa.gov]; Steeger, Thomas [Steeger.Thomas@epa.gov]

Subject: discuss draft method for incorporating usage data (PCT) into ESA method
Attachments: Methomyl SUUM.012918.Final.docx; Usage_step2_2-13-18.pptx
Location: DCRoomPYS10100/Potomac-Yard-One

Start: 2/13/2018 8:00:00 PM
End: 2/13/2018 9:00:00 PM
Show Time As: Busy

Recurrence: (none)

Ex. 5 Deliberative Process (DP)

Ex. 6 – Conference Code